

**ADDRESSABLE CONTROLLER
SYSTEM DOCUMENTATION**

**WIRE LINK SITE
REFERENCE GUIDE
RELEASE V7.1**

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Table of Contents

Section 1

Introduction.....	1.1
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Section 2

Implementation Considerations	2.1
Calculated Field Values	2.1
Converter Type to Converter Type	2.2
Hub Number to Channel Map	2.2
Hub Number to Frequency Map	2.3
Hub Number/Channel Map/Services to Channel Map	2.3
Hub Number/Channel Map/Services to Group/Subgroup	2.4
Hub Number/Channel Map/Services to International Conversion Fields.....	2.4
Hub Number/Channel Map/Services to Interactive Program Guide Region Code.....	2.6
Pay-Per-View Event to Channel Map	2.6
Services to Aux 12V Option	2.7
Services to Channel Map	2.7
Services to Converter Subtype.....	2.7
Services to Frequency Map.....	2.9
Services to Hub Number	2.9
Services to Input Frequency Map	2.9
Services to Output Frequency Map	2.10
Services to Phone Index	2.10
Services to Purchasability	2.10
Services to Sega Frequency Map.....	2.11
Services to Tuning Type	2.11
Services to UHF Output Channel Number	2.12
Overriding Values Sent by the Business System	2.12
Conflicting Parameters	2.17
Changing and Deleting Services.....	2.19
Setting Up Pay-Per-View/Impulse Pay-Per-View Events.....	2.20
Converter ID Processing	2.21
Initializing Set-Top Terminals	2.21
Refresh Mode Processing	2.22

Section 3

Wire Link Configuration File Parameters 3.1

 Debug Parameters..... 3.8

 Logging Parameters..... 3.13

 Miscellaneous Parameters 3.19

Section 4

Business System Gateway Screens..... 4.1

 Starting the Business System Gateway 4.2

 Stopping the Business System Gateway..... 4.2

 Logging..... 4.2

 Debug..... 4.3

Section 5

Nightly Statistics 5.1

 General Error Count 5.3

 ACC-4000 Command Count 5.4

 PPV/New ACC-4000 Command Count 5.4

 AH-2 Command Count..... 5.6

 Changes, Phases, Convert Count..... 5.6

 Transactions Per Hour 5.7

Section 6

Wire Link Commands and Field Tables..... 6.1

 Wire Link Commands Table 6.2

 Wire Link Field Table 6.7

Appendix A

System Messages A.1

 Wire Link Menu Screen Messages..... A.1

 Wire Link Error and Status Messages A.2

 List of All Wire Link Messages A.3

Appendix B

Converter Types..... B.1

 IMPULSE 7000 Considerations..... B.2

 International CFT2000 Consideration B.2

 Explanation of Model Number Codes B.3

Section 1

Introduction

The Wire Link is the physical and logical connection between the billing system and the ACC-4000 controller. It is the primary means used to perform functions on the ACC-4000. Because of the powerful set of functions available on the ACC-4000, the Wire Link is designed with equivalent functionality.

To perform these functions, the billing system sends the appropriate commands to the ACC-4000 using a modem or through a direct connection. The format and content of these commands have been established by General Instrument and are described in the *Wire Link Protocol Reference Guide*.

Due to varying capabilities of billing system software and because of differences in the business relationships between the cable system providers and the billing system providers, the responsibility for performing these functions often varies. The ACC-4000 controller is designed to be flexible to account for these variations. Therefore, the Wire Link configuration file on the ACC-4000 places substantial control over Wire Link processing into the hands of the cable system provider.

This document primarily describes how to use the Wire Link configuration file parameters to control the processing of Wire Link commands on the ACC-4000.

You will find the following information in this document:

Section 1	Introduction
Section 2	Implementation Considerations lists Wire Link configuration file parameters related by function. These functions include calculating field values, changing and deleting services, overriding field values sent by the billing system, setting up Pay-Per-View and Impulse Pay-Per-View events, initializing set-top terminals, and performing Refresh mode processing.
Section 3	Wire Link Configuration File Parameters lists and describes all Wire Link configuration file parameters.
Section 4	Business System Gateway Screens describes the screens used to change Wire Link functionality while the ACC-4000 is running.
Section 5	Nightly Statistics describes the statistics generated by the ACC-4000.
Section 6	Wire Link Commands and Field Tables provides two tables that indicate which Wire Link commands and fields are appropriate for each converter type.
Appendix A	System Messages lists all messages displayed by the Wire Link.
Appendix B	Converter Types lists all converter types and their attributes.

The *ACC-4000 Wire Link Protocol Reference Guide* describes the Wire Link protocol, including all of the commands and fields used to perform ACC-4000 functions.

Section 2

Implementation Considerations

This section describes relationships between Wire Link configuration file parameters that you should consider when implementing your system. The following topics are discussed:

- Calculated Field Values
- Overriding Values Sent by the Business System
- Conflicting Parameters
- Changing and Deleting Services
- Setting Up Pay-Per-View/Impulse Pay-Per-View Events
- Converter ID Processing
- Initializing Set-Top Terminals
- Refresh Mode Processing

Calculated Field Values

This subsection describes parameters that let the system calculate and assign a field value based on the value of another field sent by the business system. This includes the following:

- Converter Type to Converter Type; [241] – [249]
- Hub Number to Channel Map; [302] – [304]
- Hub Number to Frequency Map; [299] – [301]
- Hub Number/Channel Map/Services to Channel Map; [625] – [637]
- Hub Number/Channel Map/Services to Group/Subgroup; [579] – [601]
- Hub Number/Channel Map/Services to Interactive Program Guide Region Code; [607] – [619]
- Hub Number/Channel Map/Services to International Conversion Fields; [382] – [404]
- Pay-Per-View Event to Channel Map; [290] – [297]
- Services to Aux 12V Option [366] – [368]
- Services to Channel Map; [127] – [129]
- Services to Converter Subtype; [406] – [447]
- Services to Frequency Map; [257] – [259]
- Services to Hub Number; [154] – [156]
- Services to Input Frequency Map; [372] – [374]
- Services to Output Frequency Map; [375] – [377]

- Services to Phone Index; [160] – [162]
- Services to Purchasability; [130] – [132]
- Services to Sega Frequency Map; [644] – [649]
- Services to Tuning Type; [369] – [371]
- Services to UHF Output Channel Number; [267] – [269], [378] – [380]

Converter Type to Converter Type

These parameters assign a converter type based on a converter type sent by the business system. Use this feature if the business system does not support the Converter Type field or when assignment of converter types by the business system is inappropriate. The three groups enable you to define three ranges of converter types.

The related Wire Link parameters are:

- [241] Change Converter Type Group 1 - To Converter Type
- [242] Change Converter Type Group 1 - From Converter Type Start
- [243] Change Converter Type Group 1 - From Converter Type Stop
- [244] Change Converter Type Group 2 - To Converter Type
- [245] Change Converter Type Group 2 - From Converter Type Start
- [246] Change Converter Type Group 2 - From Converter Type Stop
- [247] Change Converter Type Group 3 - To Converter Type
- [248] Change Converter Type Group 3 - From Converter Type Start
- [249] Change Converter Type Group 3 - From Converter Type Stop

Hub Number to Channel Map

These parameters assign a channel map to a set-top terminal based on a specified hub number. Use this feature if the business system does not support the Channel Map field or when assignment of channel maps by the business system is inappropriate.

The related Wire Link parameters are:

- [302] Hub To Channel Map Defined On Controller (0= disabled) (add absolute value to offset of 0)
- [303] Start Hub To Channel Map Value (offset of 0)
- [304] Stop Hub To Channel Map Value

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Hub Number to Frequency Map

These parameters assign a frequency map to a set-top terminal based on a hub number sent by the business system. Use this feature if the business system does not support the Frequency Map field or when assignment of frequency maps by the business system is inappropriate.

The related Wire Link parameters are:

- [299] Hub To MC Frequency Map Defined On Controller (0= disabled) (add absolute value to offset of 0)
- [300] Start Hub To MC Frequency Map Value (offset of 0)
- [301] Stop Hub To MC Frequency Map Value

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Hub Number/Channel Map/Services to Channel Map

These parameters assign a channel map to a CFT-2900, a CFT-2200, or any other type of set-top terminal based on a calculated value from 1 through 10. The key used to calculate the “to” value can be a hub number, a channel map number, or a service number sent by the business system.

The related Wire Link parameters are:

- [625] CTCMCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)
- [626] CTCMCF “From” Start Key (Offset Of 1)
- [627] CTCMCF “From” Stop Key (positive if first service, negative if last)
- [628] CTCMCF “To” Value 01 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [629] CTCMCF “To” Value 02 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [630] CTCMCF “To” Value 03 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [631] CTCMCF “To” Value 04 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [632] CTCMCF “To” Value 05 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [633] CTCMCF “To” Value 06 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [634] CTCMCF “To” Value 07 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [635] CTCMCF “To” Value 08 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [636] CTCMCF “To” Value 09 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))
- [637] CTCMCF “To” Value 10 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Hub Number/Channel Map/Services to Group/Subgroup

These parameters assign a group, a subgroup 1, a subgroup 2, and a subgroup 3 to a set-top terminal based on a calculated value from 1 through 10. The key used to calculate the “to” value can be a hub number, a channel map number, or a service number sent by the business system.

The related Wire Link parameters are:

- [579] GSGCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)
- [580] GSGCF “From” Start Key (Offset Of 1)
- [581] GSGCF “From” Stop Key (positive if first service, negative if last)
- [582] GSGCF “To” Value 01, 1/2 (GGG111 - Group, Sub-Group 1)
- [583] GSGCF “To” Value 01, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [584] GSGCF “To” Value 02, 1/2 (GGG111 - Group, Sub-Group 1)
- [585] GSGCF “To” Value 02, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [586] GSGCF “To” Value 03, 1/2 (GGG111 - Group, Sub-Group 1)
- [587] GSGCF “To” Value 03, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [588] GSGCF “To” Value 04, 1/2 (GGG111 - Group, Sub-Group 1)
- [589] GSGCF “To” Value 04, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [590] GSGCF “To” Value 05, 1/2 (GGG111 - Group, Sub-Group 1)
- [591] GSGCF “To” Value 05, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [592] GSGCF “To” Value 06, 1/2 (GGG111 - Group, Sub-Group 1)
- [593] GSGCF “To” Value 06, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [594] GSGCF “To” Value 07, 1/2 (GGG111 - Group, Sub-Group 1)
- [595] GSGCF “To” Value 07, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [596] GSGCF “To” Value 08, 1/2 (GGG111 - Group, Sub-Group 1)
- [597] GSGCF “To” Value 08, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [598] GSGCF “To” Value 09, 1/2 (GGG111 - Group, Sub-Group 1)
- [599] GSGCF “To” Value 09, 2/2 (222333 - Sub-Group 2, Sub-Group 3)
- [600] GSGCF “To” Value 10, 1/2 (GGG111 - Group, Sub-Group 1)
- [601] GSGCF “To” Value 10, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Hub Number/Channel Map/Services to International Conversion Fields

These parameters assign a hub number, a channel map number, a UHF channel number, an Aux 12V Option, an input frequency map number, and an output frequency map number to an international set-top terminal based on a calculated value from 1 through 10. The key used to calculate the “to” value can be a hub number, a channel map number, or a service number sent by the business system.

The related Wire Link parameters are:

- [382] ICF Field To Key Off Of (1 = hub, 2 = chan map, 3 = service)
- [383] ICF “From” Start Key (offset of 1)
- [384] ICF “From” Stop Key (positive if first service, negative if last)
- [385] ICF “To” Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [386] ICF “To” Value 01, 2/2 (iioo - input frequency map, output frequency map)
- [387] ICF “To” Value 02, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [388] ICF “To” Value 02, 2/2 (iioo - input frequency map, output frequency map)
- [389] ICF “To” Value 03, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [390] ICF “To” Value 03, 2/2 (iioo - input frequency map, output frequency map)
- [391] ICF “To” Value 04, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [392] ICF “To” Value 04, 2/2 (iioo - input frequency map, output frequency map)
- [393] ICF “To” Value 05, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [394] ICF “To” Value 05, 2/2 (iioo - input frequency map, output frequency map)
- [395] ICF “To” Value 06, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [396] ICF “To” Value 06, 2/2 (iioo - input frequency map, output frequency map)
- [397] ICF “To” Value 07, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [398] ICF “To” Value 07, 2/2 (iioo - input frequency map, output frequency map)
- [399] ICF “To” Value 08, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [400] ICF “To” Value 08, 2/2 (iioo - input frequency map, output frequency map)
- [401] ICF “To” Value 09, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [402] ICF “To” Value 09, 2/2 (iioo - input frequency map, output frequency map)
- [403] ICF “To” Value 10, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [404] ICF “To” Value 10, 2/2 (iioo - input frequency map, output frequency map)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Hub Number/Channel Map/Services to Interactive Program Guide Region Code

These parameters assign an Interactive Program Guide (IPG) region code to a set-top terminal based on a calculated value from 1 through 10. The key used to calculate the “to” value can be a hub number, a channel map number, or a service number sent by the business system.

The related Wire Link parameters are:

- [607] IPGRCCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)
- [608] IPGRCCF “From” Start Key (Offset Of 1)
- [609] IPGRCCF “From” Stop Key (positive if first service, negative if last)
- [610] IPGRCCF “To” Value 01 (0 to 65535)
- [611] IPGRCCF “To” Value 02 (0 to 65535)
- [612] IPGRCCF “To” Value 03 (0 to 65535)
- [613] IPGRCCF “To” Value 04 (0 to 65535)
- [614] IPGRCCF “To” Value 05 (0 to 65535)
- [615] IPGRCCF “To” Value 06 (0 to 65535)
- [616] IPGRCCF “To” Value 07 (0 to 65535)
- [617] IPGRCCF “To” Value 08 (0 to 65535)
- [618] IPGRCCF “To” Value 09 (0 to 65535)
- [619] IPGRCCF “To” Value 10 (0 to 65535)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Pay-Per-View Event to Channel Map

These parameters assign a channel map to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Channel Map field or when the assignment of channel maps by the business system is inappropriate.

The related Wire Link parameters are:

- [290] PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)
- [291] Start Event (294) To Channel Map Value (offset 0)
- [292] Stop Event (294) To Channel Map Value
- [293] Use “Cyclical” To Channel Map (eg. if 3 then 1001 is 10, 1002 is 11, 1003 is 12, 1004 is 10)
- [294] “Cyclical” Value
- [295] Use “Add To” Existing Channel Map
- [296] “Add To” Start Valid Target Channel Map Range
- [297] “Add To” Stop Valid Target Channel Map Range

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Aux 12V Option

These parameters assign a value for the Aux 12V Option field to an international set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Aux 12V Option field or when assignment of the Aux 12V Option by the business system is inappropriate.

This feature applies only to international set-top terminals.

The related Wire Link parameters are:

- [366] Services To Aux 12V Option Defined On Controller (1 to 3)
- [367] Services To Aux 12V Option Start (1= off, 2= a/b switch, 3= on)
- [368] Services To Aux 12V Option Stop (positive if first service, negative if last)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Channel Map

These parameters assign a channel map to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Channel Map field or when the assignment of channel maps by the business system is inappropriate.

The related Wire Link parameters are:

- [127] Services To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)
- [128] Start Service To Channel Map Value (offset of 0)
- [129] Stop Service To Channel Map Value (specify “-” value if selecting last service encountered)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Converter Subtype

These parameters assign a converter subtype 1, a converter subtype 2, a converter subtype 3, and a converter subtype 4 to a set-top terminal based on a calculated value from 1 through 10. The ACC-4000 calculates the “to” value based on a service number sent by the business system.

The related Wire Link parameters are:

- [406] CSTCF “From” Start Service Number (offset of 1)
- [407] CSTCF “From” Stop Service Number (positive if first service, negative if last)
- [408] CSTCF “To” Value 01, 1/4 (0 to 65535)
- [409] CSTCF “To” Value 01, 2/4 (0 to 65535)

- [410] CSTCF “To” Value 01, 3/4 (0 to 65535)
- [411] CSTCF “To” Value 01, 4/4 (0 to 65535)
- [412] CSTCF “To” Value 02, 1/4 (0 to 65535)
- [413] CSTCF “To” Value 02, 2/4 (0 to 65535)
- [414] CSTCF “To” Value 02, 3/4 (0 to 65535)
- [415] CSTCF “To” Value 02, 4/4 (0 to 65535)
- [416] CSTCF “To” Value 03, 1/4 (0 to 65535)
- [417] CSTCF “To” Value 03, 2/4 (0 to 65535)
- [418] CSTCF “To” Value 03, 3/4 (0 to 65535)
- [419] CSTCF “To” Value 03, 4/4 (0 to 65535)
- [420] CSTCF “To” Value 04, 1/4 (0 to 65535)
- [421] CSTCF “To” Value 04, 2/4 (0 to 65535)
- [422] CSTCF “To” Value 04, 3/4 (0 to 65535)
- [423] CSTCF “To” Value 04, 4/4 (0 to 65535)
- [424] CSTCF “To” Value 05, 1/4 (0 to 65535)
- [425] CSTCF “To” Value 05, 2/4 (0 to 65535)
- [426] CSTCF “To” Value 05, 3/4 (0 to 65535)
- [427] CSTCF “To” Value 05, 4/4 (0 to 65535)
- [428] CSTCF “To” Value 06, 1/4 (0 to 65535)
- [429] CSTCF “To” Value 06, 2/4 (0 to 65535)
- [430] CSTCF “To” Value 06, 3/4 (0 to 65535)
- [431] CSTCF “To” Value 06, 4/4 (0 to 65535)
- [432] CSTCF “To” Value 07, 1/4 (0 to 65535)
- [433] CSTCF “To” Value 07, 2/4 (0 to 65535)
- [434] CSTCF “To” Value 07, 3/4 (0 to 65535)
- [435] CSTCF “To” Value 07, 4/4 (0 to 65535)
- [436] CSTCF “To” Value 08, 1/4 (0 to 65535)
- [437] CSTCF “To” Value 08, 2/4 (0 to 65535)
- [438] CSTCF “To” Value 08, 3/4 (0 to 65535)
- [439] CSTCF “To” Value 08, 4/4 (0 to 65535)
- [440] CSTCF “To” Value 09, 1/4 (0 to 65535)
- [441] CSTCF “To” Value 09, 2/4 (0 to 65535)
- [442] CSTCF “To” Value 09, 3/4 (0 to 65535)
- [443] CSTCF “To” Value 09, 4/4 (0 to 65535)
- [444] CSTCF “To” Value 10, 1/4 (0 to 65535)

- [445] CSTCF “To” Value 10, 2/4 (0 to 65535)
- [446] CSTCF “To” Value 10, 3/4 (0 to 65535)
- [447] CSTCF “To” Value 10, 4/4 (0 to 65535)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Frequency Map

These parameters assign a frequency map to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support frequency map numbers or when assignment of frequency maps by the business system is inappropriate.

This feature applies only to international set-top terminals and set-top terminals enabled for Music ChoiceSM.

The related Wire Link parameters are:

- [257] Service To Frequency Map Defined On Controller
- [258] Start Service To Frequency Map Value Defined On Controller (offset of 1)
- [259] Stop Service To Frequency Map Value

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Hub Number

These parameters assign a hub number to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Hub Number field or when assignment of the hub number by the business system is inappropriate.

The related Wire Link parameters are:

- [154] Services To Hub Number Defined On Controller
- [155] Start Service To Hub Number Value (offset of 0)
- [156] Stop Service To Hub Number Value

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Input Frequency Map

These parameters assign an input frequency map number to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Input Frequency Map field or when assignment of the input frequency map by the business system is inappropriate.

This feature applies only to international set-top terminals.

The related Wire Link parameters are:

- [372] Services To Input Frequency Map Defined On Controller (subtract absolute value from start value)
- [373] Services To Input Frequency Map Start
- [374] Services To Input Frequency Map Stop (positive if first service, negative if last)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Output Frequency Map

These parameters assign an output frequency map to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Output Frequency Map field or when assignment of the output frequency map by the business system is inappropriate.

This feature applies only to international set-top terminals.

The related Wire Link parameters are:

- [375] Services To Output Frequency Map Defined On Controller (subtract absolute value from start value)
- [376] Services To Output Frequency Map Start
- [377] Services To Output Frequency Map Stop (positive if first service, negative if last)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Phone Index

These parameters assign a phone index to a Fone-way set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Phone Index field or when assignment of the phone index by the business system is inappropriate.

The related Wire Link parameters are:

- [160] Services To Phone Index Defined On Controller (0= disabled) (add absolute value to offset of 0)
- [161] Start Service To Phone Index Value (offset of 1)
- [162] Stop Service To Phone Index Value

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Purchasability

These parameters enable or disable the Purchases field of a set-top terminal based on a specific service number. Use this feature if the business system does not support the Purchases field or when assignment of purchasability by the business system is inappropriate.

The related Wire Link parameters are:

- [130] Services To Purchasability Defined On Controller
- [131] Service Purchasability Number
- [132] Service Purchasability Processing

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Sega Frequency Map

This parameter enables you to assign a SEGA frequency map to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the SEGA Frequency Map field or when assignment of Sega frequency maps by the business system is inappropriate.

The related Wire Link parameters are:

- [644] Services To SEGA Frequency Map Defined On Controller (subtract absolute value from start value)
- [645] Services To SEGA Frequency Map Start
- [646] Services To SEGA Frequency Map Stop (positive if first service, negative if last)
- [647] Hub To SEGA Frequency Map Defined On Controller (Offset + Hub Value - Start)
- [648] Hub To SEGA Frequency Map Start (0 - 8191)
- [649] Hub To SEGA Frequency Map Stop (0 - 8191)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to Tuning Type

This parameter enables you to assign the Tuning Type to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the Tuning Type field or when assignment of tuning types by the business system is inappropriate.

The related Wire Link parameters are:

- [369] Services To Tuning Type Defined On Controller (subtract absolute value from start value)
- [370] Services To Tuning Type Start (1= HRC, 2= IRC, 3= Standard)
- [371] Services To Tuning Type Stop (positive if first service, negative if last)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Services to UHF Output Channel Number

This parameter enables you to assign the UHF output channel to a set-top terminal based on a service number sent by the business system. Use this feature if the business system does not support the UHF Output Channel field or when assignment of the UHF output channel by the business system is inappropriate.

This feature applies only to international set-top terminals.

The related Wire Link parameters are:

- [267] Services To UHF Output Channel Number Group 1 Defined On Controller (0-disabled) (add absolute value to offset of 0)
- [268] Start Service To UHF Output Channel Number Group 1 (offset 0)
- [269] Stop Service To UHF Output Channel Number Group 1 (positive if first service, negative if last)
- [378] Services To UHF Output Channel Number, Group 2 Defined On Controller (subtract absolute value from start value)
- [379] Services To UHF Output Channel Number, Group 2 Start
- [380] Services To UHF Output Channel Number, Group 2 Stop (positive if first service, negative if last)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Overriding Values Sent by the Business System

The following Wire Link parameters enable you to ignore specific field values sent by the business system or to replace values sent with another specified value. You might want to set these parameters if the business system software cannot assign the value or for some other reason specific to your cable system.

- Always Make parameters define specific values that are always assigned to a field regardless of the value sent by the business system. These parameters override a value sent by the business system, as well as any other parameter used to calculate or assign the value.
- Host Sending parameters define only whether to accept or ignore a specific field sent by the business system. If the system ignores a field in a change command, the ACC-4000 retains the existing value of the field previously assigned to the set-top terminal; for an add command, the system assigns the default value for the converter type.

The following parameters override any value sent by the business system with a specific value. Note that these values always override parameters discussed in the subsection, *Calculated Field Values*, earlier in this section.

- [306] Always Make Phone Index Equal (0 to 99) (# means ignore option)
- [307] Always Make Hub Number Equal (0 to 99)
- [310] Always Make Group Number Equal (0 to 180)
- [311] Always Make Sub Group 1 Equal (0 to 180)

- [312] Always Make Sub Group 2 Equal (0 to 180)
- [313] Always Make Sub Group 3 Equal (0 to 180)
- [314] Always Make Account Number Equal (not implemented)
- [315] Always Make Telephone Number Equal (not implemented)
- [316] Always Make Active Equal (Y, N)
- [317] Always Make Purchases Allowed Equal (Y, N)
- [318] Always Make Remove Equal (Y, N)
- [319] Always Make PC Locked Equal (Y, N)
- [320] Always Make PC Morality Equal (Y, N)
- [321] Always Make Volume Control Equal (Y, N)
- [322] Always Make TCP Equal (Y, N)
- [323] Always Make Favorite Channel Equal (Y, N)
- [324] Always Make Autotest Equal (not used)
- [325] Always Make Purchase Limit Equal (0-16 for types 4, 6, 8, 11, 13 and 14; 0-63 for greater types)
- [326] Always Make Timeout Equal (2-384 in increments of 2)
- [327] Always Make Emergency Alert Equal (16 bit binary, low order 7 bits used)
- [328] Always Make Tuning Type Equal (H, I, S)
- [329] Always Make Time Zone Equal (0 to 3)
- [330] Always Make Converter Status Equal (2 characters)
- [331] Always Make Channel Map Equal (0 to 99)
- [332] Always Make UHF Output Channel Number Equal (for international converters)
- [334] Always Make Output Frequency Map Equal (0 to 99) (460/462 Command)
- [335] Always Make Input Frequency Map Equal (0 to 99) (460/462 Command)
- [336] Always Make 12V Aux Equal (1= off, 2= controller by a/b switch, 3= on)
- [337] Always Make Amplifier Equal (6 characters)
- [504] Always Make Field Status Word 1 Equal To (0 to 65535)
- [505] Always Make Field Status Word 2 Equal To (0 to 65535)
- [506] Always Make Field Status Word 3 Equal To (0 to 65535)
- [507] Always Make Field Status Word 4 Equal To (0 to 65535)
- [508] Always Make Status Word 1 Equal To (0 to 65535)
- [509] Always Make Status Word 2 Equal To (0 to 65535)
- [510] Always Make Status Word 3 Equal To (0 to 65535)
- [511] Always Make Converter Sub-Type 1 Equal To (0 to 65535)
- [512] Always Make Converter Sub-Type 2 Equal To (0 to 65535)

- [513] Always Make Converter Sub-Type 3 Equal To (0 to 65535)
- [514] Always Make Converter Sub-Type 4 Equal To (0 to 65535)
- [521] Always Make Interactive Program Guide (IPG) Region Code (CFT-2200) Equal To (0 to 65535)
- [522] Always Make MC Frequency Map Equal To (0 to 99)
- [523] Always Make SEGA Frequency Map Equal To (0 to 99)
- [524] Always Make Audio Compression Mode Equal To (0 to 3)
- [525] Always Make Power Fail Resume Equal To (T, F)
- [526] Always Make Copy Protection Equal To (0 to 3)
- [527] Always Make Language Specifier, Active Equal To (T, F)
- [528] Always Make Language Specifier, Primary Equal To (T, F)
- [529] Always Make Language Specifier, Alternate Equal To (T, F)
- [530] Always Make User Interface Subsystem Equal To (T, F)
- [531] Always Make Downloadable Firmware Equal To (T, F)
- [534] Always Make UHF Output Channel Number Equal To (0 to 99)
- [535] Always Make Near Video On Demand (NVOD) Equal To (T, F)
- [536] Always Make Electronic Program Guide (EPG) (CFT-2900, StarSight) Equal To (T, F)
- [537] Always Make 68K Processor Option Installed Equal To (T, F)
- [538] Always Make Downloadable Firmware Option Installed Equal To (T, F)
- [539] Always Make MC Option Installed Equal To (T, F)
- [540] Always Make Wireless Option Installed Equal To (T, F)
- [541] Always Make Lynx Lite Option Installed Equal To (T, F)
- [542] Always Make Bit-Mapped Graphics Option Installed Equal To (T, F)
- [543] Always Make Digi-Dock Option Installed Equal To (T, F)
- [544] Always Make IR Blaster Option Installed Equal To (T, F)
- [545] Always Make Network Module Option Installed Equal To (T, F)
- [546] Always Make Simulcast Option Installed Equal To (T, F)
- [547] Always Make MC Digital Audio Output Muted Equal To (T, F)
- [548] Always Make MC Allow One Copy Equal To (T, F)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

The following parameters indicate whether to accept or ignore a specific field value sent by the business system. If one of these parameters is enabled and the specified field is not assigned by another Wire Link parameter, the system assigns the default value for the converter type.

- [088] Host Sending Purchases Allowed In Record Type 170 (T, F)
- [090] Host Sending Command And Initialize Bit In Record Type 170 (adds/changes) (bit 13) (T, F)
- [091] Host Sending Clear Keys In Record Type 170 (0= no, 1= parental, 2= purchase, 3= both) (T, F)
- [114] Host Sending Phone Index (T, F)
- [115] Host Sending Hub Number (T, F)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [123] Host Sending Tuning Type (T, F)
- [133] Host Sending Output Channel 3 (T, F)
- [145] Host Sending Refresh Bit In Encoded Action Word (# 170)/Status Word (# 262) (T, F)
- [147] Host Sending Record Type 284 (collect converter purchases) (T, F)
- [172] Host Sending Command And Initialize Bit In Record Type 260 (add) (bit 10) (T, F)
- [173] Host Sending Command And Initialize Bit In Record Type 262 (change) (bit 10) (T, F)
- [174] Host Sending Telephone Number (T, F)
- [175] Host Sending Purchase Limit (T, F)
- [176] Host Sending Timeout (T, F)
- [177] Host Sending Emergency Alert (T, F)
- [178] Host Sending Converter Status (T, F)
- [179] Host Sending Channel Map (T, F)
- [180] Host Sending Amplifier (6 characters for 260/262, 12 characters for 460/462 commands) (T, F)
- [182] Host Sending "Convert Command Into An Initialize" In Record Type 170 (bit 7) (T, F)
- [183] Host Sending Account Number (T, F)
- [184] Host Sending Time Zone (T, F)
- [185] Host Sending CONVID (T, F)
- [186] Host Sending Input Frequency Map (460/462 command) (T, F)
- [187] Host Sending Output Frequency Map (460/462 command) (T, F)
- [188] Host Sending Frequency Map (260/262 command) (T, F)
- [189] Host Sending 12V Aux (T, F)
- [191] Host Sending Output Channel 3 For International Converters (T, F)
- [192] Host Sending Purchases Allowed (T, F)
- [250] Host Sending Record Type 500 (0= normal, 1= accept/no check, 2= reject)

- [338] Host Sending Group Number 1 (T, F)
- [339] Host Sending Sub Group 1 (T, F)
- [340] Host Sending Sub Group 2 (T, F)
- [341] Host Sending Sub Group 3 (T, F)
- [342] Host Sending Active (T, F)
- [343] Host Sending Remote (T, F)
- [344] Host Sending PC Locked (T, F)
- [345] Host Sending PC Morality (T, F)
- [346] Host Sending Volume Control (T, F)
- [347] Host Sending TCP (time control programming) (T, F)
- [348] Host Sending Favorite Channel (T, F)
- [349] Host Sending Autotest (T, F)
- [352] Host Sending Near Video On Demand (NVOD) (T, F)
- [353] Host Sending Electronic Program Guide (EPG) (CFT-2900, StarSight) (T, F)
- [458] Host Sending Field Status word 1 (T, F)
- [459] Host Sending Field Status word 2 (T, F)
- [460] Host Sending Field Status word 3 (T, F)
- [461] Host Sending Field Status word 4 (T, F)
- [462] Host Sending Status Word 1 (T, F)
- [463] Host Sending Status Word 2 (T, F)
- [464] Host Sending Status Word 3 (T, F)
- [465] Host Sending Converter Subtype 1/4 (T, F)
- [466] Host Sending Converter Subtype 2/4 (T, F)
- [467] Host Sending Converter Subtype 3/4 (T, F)
- [468] Host Sending Converter Subtype 4/4 (T, F)
- [469] Host Sending Interactive Program Guide (IPG) Region Code (CFT-2200) (T, F)
- [470] Host Sending SEGA Frequency Map (T, F)
- [472] Host Sending Audio Compression Mode (T, F)
- [473] Host Sending Power Fail Resume (T, F)
- [474] Host Sending Copy Protection (T, F)
- [475] Host Sending Language Specifier, Active (T, F)
- [476] Host Sending Language Specifier, Primary (T, F)
- [477] Host Sending Language Specifier, Alternate (T, F)
- [478] Host Sending User Interface Subsystem (T, F)
- [479] Host Sending Downloadable Firmware (T, F)

- [482] Host Sending MC Digital Audio Output Muted (T, F)
- [483] Host Sending MC Allow One Copy (T, F)
- [485] Host Sending UHF Output Channel Number (T, F)
- [486] Host Sending 68K Processor Option Installed (T, F)
- [487] Host Sending Downloadable Firmware Option Installed (T, F)
- [488] Host Sending MC Option Installed (T, F)
- [489] Host Sending Wireless Option Installed (T, F)
- [490] Host Sending Lynx Lite Option Installed (T, F)
- [491] Host Sending Bit-Mapped Graphics Option Installed (T, F)
- [492] Host Sending Digi-Dock Option Installed (T, F)
- [493] Host Sending IR Blaster Option Installed (T, F)
- [494] Host Sending Network Module Option Installed (T, F)
- [495] Host Sending Simulcast Option Installed (T, F)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Conflicting Parameters

Some parameters assign field values that override values sent by the business system and other Wire Link parameters. You need to be aware of parameters that take precedence over or conflict with other parameters.

There are two basic types of these parameters:

- Always Make parameters override values set by any other Wire Link parameter and any value sent by the business system. These parameters are listed in the subsection, *Overriding Values Sent by the Business System*
- Services to <field> parameters assign a field value based on another value sent by the business system. If an appropriate value is not sent by the business system, the system can set the field value only using another parameter that calculates the same field value, or the default value defined for the converter type.

For example, if parameter [372], Services To Input Frequency Map Defined On Controller (subtract absolute value from start value), is enabled, the Frequency Map can be assigned only by sending a service number in the specified range. If the business system does not send a service number in the range used to calculate the Frequency Map, the system assigns the default Frequency Map defined for the converter type. If parameter [335], Always Make Input Frequency Map Equal (0 to 99) (460/462 Command), is set to a value, parameter [372] is disabled.

These parameters are listed in the subsection, *Calculated Field Values*.

If you use a combination of Wire Link parameters to assign the same value, be careful to ensure that one calculated value is not overwritten by another. The following list shows fields that can be assigned values by multiple Wire Link parameters:

The following parameters assign the Frequency Map field:

- [257] Services To Frequency Map Defined On Controller
- [299] Hub To MC Frequency Map Defined On Controller (0= disabled) (add absolute value to offset of 0)

The following parameters assign the Channel Map field:

- [127] Services To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)
- [290] PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)
- [302] Hub To Channel Map Defined On Controller (0= disabled) (add absolute value to offset of 0)
- [331] Always Make Channel Map Equal (0 to 99)
- [385] ICF “To” Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)
- [625] CTCMCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)

The following parameters assign the Hub Number field:

- [154] Services To Hub Number Defined On Controller
- [307] Always Make Hub Number Equal (0 to 99)
- [385] ICF “To” Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

The following parameters assign the Output Frequency Map field:

- [334] Always Make Output Frequency Map Equal (0 to 99) (460/462 Command)
- [375] Services To Output Frequency Map Defined On Controller (subtract absolute value from start value)
- [386] ICF “To” Value 01, 2/2 (iiioo - input frequency map, output frequency map)

The following parameters assign the Input Frequency Map field:

- [186] Host Sending Input Frequency Map (460/462 command (T, F))
- [335] Always Make Input Frequency Map Equal (0 to 99) (460/462 Command)
- [372] Services To Input Frequency Map Defined On Controller (subtract absolute value from start value)
- [386] ICF “To” Value 01, 2/2 (iiioo - input frequency map, output frequency map)

The following parameters assign the Aux 12V Option field:

- [336] Always Make 12V Aux Equal (1= off, 2= controller by a/b switch, 3= on)
- [366] Services To Aux 12V Option Defined On Controller (1 to 3)
- [385] ICF “To” Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Changing and Deleting Services

The following information describes parameters that enable the business system to manage subscriptions, events, and packages. The business system can delete subscriptions and events using:

- Bit 3 (Clear Both (Subscriptions and Events)) of the Status Word field sent in Record Types 262 and 462.
- Bit 5 (Clear Both (Subscriptions and Events)) of the Encoded Action Word field sent in Record Types 060 and 170.

Business systems often delete all subscriptions, events, and packages and then re-add them using the change converter information commands, Record Types 262 or 462. Some business systems want to delete and re-add only subscriptions, not events. Therefore, the following Wire Link parameters define how the Wire Link processes clear both commands sent by the business system:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

The following Wire Link parameters define the range of service numbers used for subscriptions:

- [120] Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [121] Stop Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

A package can be treated as a subscription or as an event. Parameter [118], Treat A Package As An Event (normally treated as a subscription), determines whether a package is considered an event or a subscription when only events or only subscriptions are cleared in a change command sent by the business system.

Setting Up Pay-Per-View/Impulse Pay-Per-View Events

If you are not using Pay Service Loader (PSL), consider the implications of the following when manually implementing Pay-Per-View and Impulse Pay-Per-View events:

- Set up the event on the ACC-4000 before the business system begins to authorize purchases.
- Be sure the start time of the event is at least six hours before the start of the actual event. For special events, allow at least two to seven days in advance.
- Schedule events to start and stop on either even-numbered or odd-numbered hours. For example, if you use even-numbered hours, be sure that all events start and stop at 10:00, 12:00, 14:00, and so on. This reduces the processing overhead associated with events being activated and deactivated on the ACC-4000.
- Always reserve 2 to 4 tags for special events. Set up special events separately. Authorize and test special events in advance.
- Have personnel available on site on the day of a special event. Be sure the person is familiar with the headend and with channel scheduling on the ACC-4000.
- Run daily reports on both the business system and the ACC-4000 for both normal and special events.
- Be aware of future plans for your site. Specifically, be aware of additional hardware required for new services or additional subscribers.
- If you manually delete events when they are over, consider using the Delete Pay Service utility (DBDPAYS).

You should become familiar with using the ACC-4000 packaging scheme to:

- Set up VIP packages that authorize set-top terminals for all available events.
- Authorize a service as a subscription, as an event, or as a package.
- Group multiple events within a single package.

For information on setting up packages on the ACC-4000, see the *ACC-4000 System Operator User Guide*.

The following Wire Link parameters affect the implementation of Pay-Per-View (PPV) and Impulse Pay-Per-View (IPPV):

- [047] Logging Option - Option 12 - Use PPV Module
- [073] Display Error For RF Before Event, All After The Event
- [106] Allow Preauthorization Of RF Converters
- [107] Wait For Punches For RF Converters (0= wait, 1= no wait, 2= no wait except non-change)
- [108] Data Base Error 105/15 Processing (0= normal, 1= display/punch, 2= no display/punch)
- [117] Invalid Service Sent By Host During PPV Command (0= normal, 1= proc/disp/punch, 2= rej/disp)
- [140] Punch All Defined Subscriptions For STARFONE Converters

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Converter ID Processing

The Converter ID is the primary field used by the business system to identify a set-top terminal using Wire Link commands. The following parameters directly affect the processing of the Converter ID field sent by the business system:

- [063] 512k CONVID Option
- [087] Assign CONVID Only In These Partitions (binary - 5 would be 1st and 3rd partitions)
- [185] Host Sending CONVID (T, F)
- [228] Processing For No CONVID Number (all 0's /1's) Sent By Business System (0= normal, 1= ret err, 2= ret convid)
- [260] 1st Valid Start Converter ID For This Wire Link
- [261] 1st Valid Stop Converter ID For This Wire Link
- [262] 2nd Valid Start Converter ID For This Wire Link
- [263] 2nd Valid Stop Converter ID For This Wire Link
- [363] Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both)

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Initializing Set-Top Terminals

All downloadable set-top terminals must be initialized. Before being initialized, a set-top terminal must be added to the ACC-4000 database and attached to the cable plant. If a two-way set-top terminal does not respond, the ACC-4000 will deactivate it.

There are two types of initializations: full initialize and partial initialize.

A full initialize performs the following functions:

- Clears non-volatile memory, including TCB options and purchases
- Assigns a new converter ID to the set-top terminal with the specified serial number
- Invokes the set-top terminal to perform internal diagnostics and tune to channel 2
- Updates the set-top terminal with the appropriate options and services

When the Initialize field on the ACC-4000 is set to Y, any subsequent attempt to initialize the set-top terminal results in a partial initialization.

A partial initialization performs the following functions:

- Clears all user-controlled settings from memory
- Invokes the set-top terminal to perform internal diagnostics and tune to channel 2
- Updates the set-top terminal with the appropriate TCB options

Because initialization can delete purchases, use caution when initializing set-top terminals that have Impulse Pay-Per-View capabilities. Full initialization clears purchases, but partial initialization does not. You can use the following parameters to control how the ACC-4000 performs initializations:

- [061] Always Do Initialize (# 264)
- [065] Already Initialized - If Converter Downloadable, Assume Already Initialized
- [136] Initialize Converter When An Add From Host
- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [144] If Service Sent From Host, Do Initialize
- [146] Always Do Command And Initialize (all but delete command)
- [168] Initialize Converter If Moved “To” This Converter Status
- [169] Initialize Converter If Account Field Changes

For a detailed description of these parameters, see *Section 3, Wire Link Configuration File Parameters*.

Refresh Mode Processing

Refresh mode enables the business system to send a part or all of its database to the ACC-4000. During a refresh, the ACC-4000 compares and updates values stored in its database with values sent by the business system.

Wire Link parameters [196] through [206] determine which information to compare or update.

You can perform a refresh using two methods:

Refresh Mode This processes all change commands sent by the business system as a refresh. Set either or both of the following Wire Link parameters to T:

[025] Debug Option - Option 6 - Refresh Mode - Display Differences

[026] Debug Option - Option 7 - Refresh Mode - Update Differences

or

If parameter [234], Changes To Refresh Options Allowed ([025], [026]), is set to T, set either or both of the following options on the Business System Gateway Debug Options screen:

Refresh Mode - Display Differences

Refresh Mode - Update Differences

Single Refresh This processes only a single change command as a refresh.

In Record Type 170, Converter Update (Serial/Account/Others), set bit 10 of the Encoded Action Word field to 1.

In Record Types 262 and 462, Change Converter Information, set bit 13 of the Status Word field to 1.

The following is an example of Refresh mode messages displayed on the Wire Link Monitor screen, Logger window, or the Wire Link transaction file. Note that two columns display for each compared value to show the differences between the value on the ACC-4000 and the value on the business system.

```

I 150 - <<<- business system MESSAGE - Seq. No. +00222 - 262 - Change Subscriber ->>
I 151 - activate = N subid = 1/2 serial no = $ conv type = 7 c status = BB
I 152 - hub = $ account = $ phone no = $ remote = N tim zone = $
I 153 - action c = $ emerg.= $ --- purchases = $ output ch. = $ phon idx = $
I 154 - p. limit = $ t. type = $ amplifier = 1234AA clr none = chn cref = 02
I 155 - time/tcp = N autotst = N last/fav = N pc-locked = N pc-moral = N
I 156 - m/s type = $ m/s key = $ vol./ster = N timeout = 256 services = 03
I 157 - 0001 0003 0004
I 158 - >>>- REMOTE RESPONSE - Seq. No. +00222 -<<
E 138 -
I 412 - Refresh Differences: Subid = 1/2, Serial = J4J1000030 , Acct = E1
E 413 - Active : ACC-4000 DB= Y BS= N
E 413 - Amplifier : ACC-4000 DB= UNUSED BS= 1234AA
E 413 - Conv Status : ACC-4000 DB= AA BS= BB
E 413 - Remote : ACC-4000 DB= Y BS= N
E 413 - Timeout : ACC-4000 DB= +00128 BS= +00256
E 413 - Serv Count : ACC-4000 DB= 00002 BS= 00003
E 414 - SERV"S DBvBS, -0001
I 141 - Req Proc 1/2, J4J1000030 , E1 /* * CF

```

The following are the Wire Link parameters associated with Refresh Mode:

- [025] Debug Option - Option 6 - Refresh Mode - Display Differences
- [026] Debug Option - Option 7 - Refresh Mode - Update Differences
- [135] Replace Installation Date With Current Date On Refresh
- [141] Refresh Mode - Write Differences To System Console
- [142] Refresh Mode - Write Differences To WLTRANS.DAT File
- [145] Host Sending Refresh Bit In Encoded Action Word (# 170)/Status Word (# 262) (T, F)
- [196] Refresh Mode - Print Differences Not Controlled By [197]...[206], [557]...[574]
- [197] Refresh Mode - Print Differences In Services \
- [198] Refresh Mode - Print Differences In Account Numbers ✓
- [199] Refresh Mode - Print Differences In Converter Status ↵
- [200] Refresh Mode - Print Differences In Phone Index
- [201] Refresh Mode - Print Differences In Hub Number
- [202] Refresh Mode - Print Differences In TCB
- [203] Refresh Mode - Print Differences In Purchase Limit, Purchases Allowed
- [204] Refresh Mode - Print Differences In Tuning Type, Output Channel 3, Channel Map
- [205] Refresh Mode - Print Differences In Amplifier, Master/Slave Status/Code

- [206] Refresh Mode - Print Differences In Active, Initialized
- [234] Changes To Refresh Options Allowed ([025],[026])
- [557] Refresh Mode - Print Differences In Interactive Program Guide (IPG) Region Code (CFT-2200)
- [558] Refresh Mode - Print Differences In MC, Input And Output Frequency Maps
- [559] Refresh Mode - Print Differences In Audio Compression, Copy Protection, Power Fail Resume Modes
- [560] Refresh Mode - Print Differences In Language Specifiers Active, Primary And Alternate
- [561] Refresh Mode - Print Differences In User Interface Subsystem and Dwnld. Firmware
- [563] Refresh Mode - Print Differences In Converter Group/Sub-Groups
- [564] Refresh Mode - Print Differences In Telephone Number
- [565] Refresh Mode - Print Differences In Timeout Limit And Emergency Alert
- [566] Refresh Mode - Print Differences In UHF Output Channel Number And Aux 12V Option
- [567] Refresh Mode - Print Differences In Near Video On Demand (NVOD) And Electronic Program Guide (EPG)
- [568] Refresh Mode - Print Differences In 68K Processor And Downloadable Firmware Options Installed
- [569] Refresh Mode - Print Differences In MC, Wireless And Lynx Lite Options Installed
- [570] Refresh Mode - Print Differences In Bit-Mapped Graphics And Digi-Dock Options Installed
- [571] Refresh Mode - Print Differences In IR Blaster And Network Module Options Installed
- [572] Refresh Mode - Print Differences In Simulcast Option Installed
- [573] Refresh Mode - Print Differences In MC Digital Audio Muted, MC Allow One Copy
- [574] Refresh Mode - Print Differences In SEGA Frequency Map

For a detailed description of Wire Link parameters, see *Section 3, Wire Link Configuration File Parameters*.

Section 3

Wire Link Configuration File Parameters

This section contains a description of each Wire Link configuration file parameter.

The Wire Link configuration file is stored in the /acc4000/data directory. Because each Wire Link attached to the ACC-4000 has its own configuration file, the configuration file is named wl#config.dat, where # is the number of the associated Wire Link.

All Wire Link configuration file parameters retain the values that are set when the ACC-4000 is booted. If you change the value of a parameter, you must reboot the system to effect the change.

The only features controlled by Wire Link parameters that you can change while the ACC-4000 is running are the debug parameters and the log parameters. You can change these functions on the Business System Gateway menu screens. Each Business System Gateway menu option has a corresponding Wire Link configuration file parameter. When you change values on the Business System Gateway menu screen, you do not update the value of the corresponding parameter in the Wire Link configuration file. Therefore, when you reboot the ACC-4000, the Wire Link is reset to perform according to the values specified in the Wire Link configuration file.

For information on using the Business System Gateway menu screens, see *Section 4, Business System Gateway Screens*.

The values of Wire Link configuration file parameters are either Boolean, integer or character.

- The only valid values for a Boolean parameter are T and F. For most Boolean parameters, T enables the function and F disables the function. Always set Boolean parameters described as open to F. Boolean parameters are sometimes referred to as flags.
- Always set integer parameters described as open to 0 (zero). Integer parameters are also referred to as options. Parameters that call for the value of a service number can be set to 0 (zero) through 8191.
- Fill all character parameters described as open with a blank. Character parameters are also referred to as options.
- Set Always Make parameters that are disabled to #.
- Do not set a configuration file parameter to an undocumented value. Use only values specified in this document unless instructed otherwise by General Instrument personnel.

[001] Wire Link Base Port (dh = 1, dz = 4)

This parameter is included for compatibility with previous controllers. It is not used for the ACC-4000.

This parameter specifies the I/O card used for the screens, the Wire Link CRT, and the Wire Link I/O. Valid entries are 2 for DH cards or 1 for DZ cards. Usually, DH cards are installed in the AH-4E and DZ cards are installed in the AH-4.

[002] Wire Link Card Type (dh = 2, dz = 1)

This parameter is included for compatibility with previous controllers. It is not used for the ACC-4000.

This value specifies the type of I/O card used for the screens, the Wire Link CRT, and the Wire Link I/O. Valid entries are 2 for DH cards or 1 for DZ cards. Usually, DH cards are installed in the AH-4E and DZ cards are installed in the AH-4.

[003] CRT Port To Attach To (07 = tt7, 08 = tt10, 09 = tt11, 10 = tt12, 11 = tt13, etc)

For the ACC-4000, set this parameter to xterm.

For General Instrument controllers prior to the ACC-4000, this is a value from 2 through 17, that corresponds to the I/O port to which the Wire Link Monitor screen is attached.

[004] I/O Port To Attach To (07 = tt7, 08 = tt10, 09 = tt11, 10 = tt12, 11 = tt13, etc)

For the ACC-4000, set this parameter to ttya8 for the first Wire Link, ttya7 for the second Wire Link, ttya6 for the third, and so on.

This parameter specifies the I/O port to which the serial RS-232C, asynchronous, communications cable is attached.

For General Instrument controllers prior to the ACC-4000, this parameter is set to a port number from 2 through 17.

[005] Wire Link Baud Rate (4 numerics)

Set this parameter to the number of data bits per second transferred over the Wire Link. A byte is transmitted as 10 bits. Therefore, a baud rate of 1200 is equal to 1200 bits per second or 120 characters per second.

The 10 bits that comprise a byte are 1 start bit, 1 stop bit, and either 8 data bits with no parity, or 7 data bits with a parity bit. Also see the descriptions of parameters [006] and [007].

Set this parameter to 300, 1200, 2400, 4800, or 9600, depending upon the capabilities of the modem being used.

The baud rate defined on the ACC-4000 must match the baud rate used by the business system. The values set for the data bits, the parity, and the stop bits must match the corresponding parameters being used by the business system.

[006] Wire Link Data Bits (5, 6, 7 or 8 --- normally “8”)

This parameter specifies the number of data bits in the 10 bit character field.

You must set this parameter to 7 if parameter [007] is E or O.

You must set this parameter to 8 if parameter [007] is N.

The baud rate defined on the ACC-4000 must match the baud rate used by the business system. The values set for the data bits, the parity, and the stop bits must match the corresponding parameters being used by the business system.

[007] Wire Link Parity (n for none, e for even, o for odd --- normally “n”)

This parameter specifies the parity used in Wire Link communications with the business system.

Set this parameter to one of the following values:

- N** None (no parity)
- E** Even parity
- O** Odd parity
- M** Marked parity

Set this parameter to N if parameter [006] is 8.

You must set this parameter to E or O if parameter [006] is 7.

Parity is the simplest form of error checking. The parity bit is on or off depending on the bit pattern of the data and whether even or odd parity is being used. For example, if 3 data bits out of 7 data bits are on and parity is even, the parity bit is on; this results in an even 4 bits turned on.

The baud rate defined on the ACC-4000 must match the baud rate used by the business system. The values set for the data bits, the parity, and the stop bits must match the corresponding parameters being used by the business system.

[008] Wire Link Stop Bits (1 or 2 --- normally “1” except at 110 baud)

This parameter specifies the number of stop bits used in the Wire Link transmission.

Set this parameter to 2 for 110 baud or to 1 for 300 baud and above. Parameter [005] specifies the baud rate.

The baud rate defined on the ACC-4000 must match the baud rate used by the business system. The values set for the data bits, the parity, and the stop bits must match the corresponding parameters being used by the business system.

[009] Turn Around Delay Time In Ticks (2 numerics - where 60 ticks = 1 second - normally “7”)

Some business systems require a specific amount of time to change from send mode to receive mode. This parameter specifies the minimum amount of time the ACC-4000 waits after receiving a transmission before it sends back a transmission.

Set this parameter to a value from 0 (zero) to 900 tics, where 60 tics = 1 second.

The recommended setting is 7.

[010] Time To Wait For Next Character Once Packet Started (4 numerics - in tics where 600 = 10 sec)

This parameter defines the maximum period of time that can pass between the start and the end of a command received from the business system before a timeout occurs. This compensates for any interruption to a transmission from the business system.

Set this parameter to a value from 15 through 300 tics, where 60 ticks = 1 second.

If the Wire Link receives no data after the specified period, the transmission is lost and an error is sent to the business system. The business system must re-send the command when it restores the communication link.

The recommended setting is the maximum allowable value of 300 ticks, which is equal to 5 seconds.

[011] Max Time To Wait For XON After Receiving XOFF (3 numerics - in seconds)

If the business system or modem cannot process transactions at a rate sent by the ACC-4000, it can send an XOFF character (hexadecimal 13) to instruct the ACC-4000 to stop sending data. It can then send an XON character (hexadecimal 11) to instruct the ACC-4000 to resume.

Set this parameter to a value from 1 through 20, measured in seconds, to define the maximum amount of time that can pass after receiving the XOFF. If the ACC-4000 does not receive the XON character within this period, it resumes transmitting.

This feature is enabled only if parameter [013] is set to T.

The recommended setting is 20, the maximum allowable value.

[012] Binary/HEX Encoding (always “t”)

Set this parameter to T to encode all data as ASCII using binary/hex encoding. For an explanation of binary/hex encoding, see *Binary/Hex Encoding* in *Section 2, Wire Link Packet Data* of the *Wire Link Protocol Reference Guide*.

Binary/hex encoding prevents any binary or character data from being misinterpreted as a start-of-text (STX) or an end-of-text (ETX).

[013] XON/XOFF Flow Control

Set this parameter to T to use XON/XOFF flow control. If the ACC-4000 cannot process transactions at a rate sent by the business system, it can send an XOFF character (hexadecimal 13) to instruct the business system to stop sending data.

The recommended setting is F. This parameter must be set to F if the Wire Link uses telephone lines for transmission of data.

[014] Byte Swapping

All numeric values sent to the ACC-4000 are 16 bits (2 bytes). Most systems store and receive these 2 bytes in order such that the most significant byte is the high or left-most 8 bits of the 16 bit word. This parameter compensates for some business system equipment that stores and receives these bytes in reverse order.

Set this parameter to one of the following values:

- T** Use byte swapping if the business system computer sends the right-most (low) word first.
- F** Do not use byte swapping. This accounts for when the business system sends the left-most (high) word first (RSX/VAX mode).

[015] Number Of Input STX Characters (0 to 4)

This parameter defines the characters used for the input start-of-text (STX).

The STX is zero to four characters transmitted at the beginning of every Wire Link packet. The ACC-4000 ignores all data sent over the Wire Link until it receives the STX. The STX is not considered part of the packet; therefore, it is not included in length or checksum calculations performed by the Wire Link. It is not binary/hex encoded.

Set the first line of this parameter to an integer from 0 (zero) to 4 to indicate how many characters to use for the STX. Type each character on a separate line following the first line. Each character can be a decimal value from 0 (zero) to 127 that represents an ASCII character.

The following is an example of a configuration file two-line entry that defines a one-character STX, the decimal value 02:

1	[015] Number Of Input STX Characters (0 to 4)
02	

Only commands sent to the ACC-4000 use the input STX. Parameter [018] defines the output STX used for packets sent to the business system.

Be aware of the following limitations:

- If you have multiple Wire Links, each can use the same STX.
- The STX cannot be the same as the ETX.
- The input STX can be the same as the output STX.

For consistency with General Instrument's test system, the recommended values are 1 for the length and 02 for the character as shown in the above example.

[016] Delay Between I/O Reads (in ticks)

Set this parameter to 0 (zero). This parameter is no longer applicable.

[017] Number Of Input ETX Characters (1 to 4)

This parameter defines the characters used for the input end-of-text (ETX).

The ETX is one to four characters transmitted at the end of every Wire Link packet. The ACC-4000 ignores all data sent over the Wire Link after it receives the ETX until the next STX. The ETX is not considered part of the packet; therefore, it is not included in length or checksum calculations performed by the Wire Link. It is not binary/hex encoded.

Set the first line of this parameter to an integer from 1 to 4 to indicate how many characters to use for the ETX. Type each character on a separate line following the first line. Each character can be a decimal value from 0 (zero) to 127 that represents an ASCII character.

The following is an example of a configuration file two-line entry that defines a one-character ETX, the decimal value 13:

```
1      [017] Number Of Input ETX Characters (1 to 4)
13
```

Only commands sent to the ACC-4000 use the input ETX. Parameter [019] defines the output ETX used for packets sent to the business system.

Be aware of the following limitations:

- If you have multiple Wire Links, each can use the same ETX.
- The ETX cannot be the same as the STX.
- The input ETX can be the same as the output ETX.

For consistency with General Instrument’s test system, the recommended values are 1 for the length and 13 (Hexadecimal value 0D) for the character as shown in the above example.

[018] Number Of Output STX Characters (0 to 4)

This parameter defines the characters used for the output start-of-text (STX).

The STX is zero to four characters transmitted at the beginning of every Wire Link packet. The business system ignores all data sent over the Wire Link until it receives the STX. The STX is not considered part of the packet; therefore, it is not included in length or checksum calculations performed by the Wire Link. It is not binary/hex encoded.

Set the first line of this parameter to an integer from 0 (zero) to 4 to indicate how many characters to use for the STX. Type each character on a separate line following the first line. Each character can be a decimal value from 0 (zero) to 127 that represents an ASCII character.

The following is an example of a configuration file two-line entry defining a one-character STX, the decimal value 02:

1	[018] Number Of Output STX Characters (0 to 4)
02	

Only commands sent to the business system use the output STX. Parameter [015] defines the input STX used for packets sent to the ACC-4000.

Be aware of the following limitations:

- If you have multiple Wire Links, each must use the same STX.
- The STX cannot be the same as the ETX.
- The output STX can be the same as the input STX.

For consistency with General Instrument's test system, the recommended values are 1 for the length and 02 for the character as shown in the above example.

[019] Number Of Output ETX Characters (1 to 4)

This parameter defines the characters used for the output end-of-text (ETX).

The ETX is one to four characters transmitted at the end of every Wire Link packet. The business system ignores all data sent over the Wire Link after it receives the ETX until the next STX. The ETX is not considered part of the packet; therefore, it is not included in length or checksum calculations performed by the Wire Link. It is not binary/hex encoded.

Set the first line of this parameter to an integer from 1 to 4 to indicate how many characters to use for the ETX. Type each character on a separate line following the first line. Each character can be a decimal value from 0 (zero) to 127 that represents an ASCII character.

The following is an example of a configuration file two-line entry that defines a one-character ETX, the decimal value 13:

1	[019] Number Of Output STX Characters (1 to 4)
13	

Only commands sent to the business system use the output ETX. Parameter [017] defines the input ETX used for packets sent to the ACC-4000.

Be aware of the following limitations:

- If you have multiple Wire Links, each must use the same ETX.
- The ETX cannot be the same as the STX.
- The output ETX can be the same as the input ETX.

For consistency with General Instrument's test system, the recommended values are 1 for the length and 13 (Hexadecimal value 0D) for the character as shown in the above example.

Debug Parameters

Parameters [020] through [035] correspond to debug options set temporarily on the Business System Gateway Debug Options screen. Although parameter settings are permanent, options set on the Business System Gateway Debug Options screen are temporary. When the ACC-4000 is rebooted, options set on the Business System Gateway Debug Options screen are lost and the system sets debug options according to parameters set in this file.

Only General Instrument personnel should change debug parameters.

Valid settings for these parameters are T to enable the feature, or F to disable the feature. Set all open parameters to F.

[020] Debug Option - Option 1 - *** OPEN ***

Set this parameter to F.

[021] Debug Option - Option 2 - Dump Input Buffer On Protocol Error

This parameter is for use only by General Instrument personnel to display the 512 byte input buffer when there is a protocol error, such as packet timeout or a checksum error.

Set this parameter to one of the following values:

- T Dump the input buffer when there is a protocol error. This is the debug setting.
- F Do not dump the input buffer when there is a protocol error. This is the normal setting.

This parameter corresponds to the Dump input buffer on protocol error option on the Business System Gateway Debug Options screen.

[022] Debug Option - Option 3 - Get Input From CRT Instead Of Wire Link (for jerrold only)

This parameter is for use only by General Instrument personnel to disable input from the business system to test the Wire Link software.

Set this parameter to one of the following values:

- T Disable the Wire Link from processing transactions sent by the business system and get the input only from Wire Link screen.
- F Enable the Wire Link to process transactions sent by the business system.

This parameter corresponds to the Get input from CRT instead of wirelink option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this feature without rebooting the system.

[023] Debug Option - Option 4 - Dump Each Byte When Received (without pointers)

This parameter is for use only by General Instrument personnel to display each byte of the packet received from the business system. Although this can generate a lot of data, you can use the information to determine any communications problems between the business system and the ACC-4000, such as a bad modem or telephone line.

Set this parameter to one of the following values:

- T** Display all bytes received in a command sent by the business system on the Wire Link Monitor screen.
- F** Do not display the byte dump.

This parameter corresponds to the Dump each byte when received option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[024] Debug Option - Option 5 - Dump Output Packet Before Transmission To Host

This parameter is for use only by General Instrument personnel to display the output packet (12 to 157 bytes) before it is transmitted to the business system.

- T** Write the output packet sent to the host to the Wire Link Monitor screen.
- F** Do not dump the output packet byte dump.

This parameter corresponds to the Dump output packet before host transmission option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[025] Debug Option - Option 6 - Refresh Mode - Display Differences

This parameter is for use only by General Instrument personnel to display any differences between values being changed and the corresponding values stored in the ACC-4000 database.

You can control the specific fields for which differences are displayed using parameters [197] through [206] and [557] through [574]. Displaying differences for all other field values is enabled by parameter [196], Refresh Mode - Print Differences Not Controlled By [197]..[206], [557]..[574].

- T** Enable Refresh mode to display differences.
- F** Disable Refresh mode; do not display differences.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations* for more detailed information and a list of the Wire Link parameters that control the displaying of differences generated by a refresh.

This parameter corresponds to the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system if parameter [234], Changes To Refresh Options Allowed ([025],[026]), is T.

[026] Debug Option - Option 7 - Refresh Mode - Update Differences

This parameter is for use only by General Instrument personnel to control whether to update the database with differences between values being changed when the ACC-4000 is in Refresh mode.

- T Enable Refresh mode; update the ACC-4000 database with differences.
- F Disable Refresh mode or do not update the database with differences if parameter [025] is set to T.

If you set this parameter to F, differences do not update the database. The differences display only if parameter [025] is T and the parameter that controls the displaying of differences for that value is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of the Wire Link parameters that control the display of differences generated by a refresh.

This parameter corresponds to the Refresh Mode - Update Differences option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system if parameter [234], Changes To Refresh Options Allowed ([025],[026]), is T.

[027] Debug Option - Option 8 - Use “1-Second” Wire Link(s)

This parameter is for use only by General Instrument personnel to enable or disable the use of 1-second Wire Link processing.

During normal Wire Link processing, the Wire Link sends a Return Status Message command, Record Type 001, to the business system only when processing of the command is complete. During 1-second Wire Link processing, the ACC-4000 sends a successful Return Status Message command to the business system before processing the command. This increases the performance of the Wire Link. The system continues 1-second processing until a specified number of errors occurs; the system then switches back to normal Wire Link processing.

To enable 1-second Wire Link processing:

- This parameter must be set to T or the Use “1-Second” wirelink(s) option on the Business System Gateway Debug Options screen must be Y.
- Wire Link configuration file parameters [079], [080], and [081] must all be set to a value greater than 0 (zero) to enable 1-second processing for the following Wire Link commands:
 - Record Type 060, Converter Update
 - Record Type 170, Converter Update (Serial/Account/Others)
 - Record Type 260, Assign (Add) New Converter

- Record Type 262, Change Converter Information
- Record Type 294, PPV Group Update By Converter ID
- Record Type 296, PPV Group Update By Serial Number
- Record Type 460, Assign (Add) New Converter (expanded)
- Record Type 462, Change Converter Information (expanded)

This parameter corresponds to the Use “1-Second” wirelink(s) option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[028] Debug Option - Option 9 - Always Do Full Change Punches

This parameter is for use only by General Instrument personnel to control whether to always punch set-top terminals with all services and options. The usual operating mode is to allow partial changes if a change does not update the database.

Set this parameter to one of the following values:

- T** Always update set-top terminals with all services and options, regardless of the converter type.
- F** Enable the ACC-4000 to perform partial changes for two-way set-top terminals when the command contains fields invalid for the converter type.

This parameter corresponds to the Always allow full change punches option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[029] Debug Option - Option 10 - If PPV Module Used/Return Statuses, Wait For Actual Statuses (T)

This parameter is for use only by General Instrument personnel to delay sending the Return Status Message command, Record Type 001, to the business system until the ACC-4000 processes all authorizations in a PPV Group Update command, Record Types 294 or 296.

Set this parameter to one of the following values:

- T** Delay sending the Return Status Message command until the ACC-4000 completes processing service authorizations.
- F** Send a successful Return Status Message command immediately in response to the PPV Group Update command.

This parameter corresponds to the If PPV used, wait for actual return statuses option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[030] Debug Option - Option 11 - * OPEN *****

Set this parameter to F.

[031] Debug Option - Option 12 - Dump Input Packet When ETX Received

This parameter is for use only by General Instrument personnel to display the contents of the input packet when the Wire Link receives the ETX.

Set this parameter to one of the following values:

- T** Dump the input packet when the Wire Link receives the ETX for a command.
- F** Do not dump the input packet when the Wire Link receives the ETX.

This parameter corresponds to the Dump input packet when ETX received option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[032] Debug Option - Option 13 - *** OPEN ***

Set this parameter to F.

[033] Debug Option - Option 14 - Dump Input Buffer When ETX Received

This parameter is for use only by General Instrument personnel to display the 512 byte input buffer when the Wire Link receives the ETX.

Set this parameter to one of the following values:

- T** Dump the input buffer containing the command after receiving the ETX.
- F** Do not dump the input buffer after receiving the ETX.

This parameter corresponds to the Dump input buffer when ETX received option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

[034] Debug Option - Option 15 - No Action Mode (immediately return successful to host)

This parameter is for use only by General Instrument personnel to send a successful Return Status Message command, Record Type 001, to the business system before processing of a command has taken place on the ACC-4000.

Set this parameter to one of the following values:

- T** Send a successful Return Status Message command to the business system immediately after receiving any command. Use this setting to perform timing tests between the business system and the ACC-4000. For example, it can indicate the number of transactions per hour the business system can transmit.
- F** Send the Return Status Message command only after the command is processed.

This parameter corresponds to the Immediately return successful to host option on the Business System Gateway Debug Options screen. The Business System Gateway Debug Options screen can temporarily enable this option without rebooting the system.

This parameter is disabled if parameter [074], No Action Mode Allowed, is T.

[035] Debug Option - Option 16 - * OPEN *****

Set this parameter to F.

Logging Parameters

Parameters [036] through [051] correspond to options on the Business System Gateway Log Options screen. Although parameter settings are permanent, options set on the Business System Log Options screen are temporary. When the ACC-4000 is rebooted, options set on the Business System Log Options screen are lost and the system sets logging options according to parameters set in this file.

Only General Instrument personnel should change logging parameters.

Valid settings for these parameters are T to enable the feature, or F to disable the feature. Set all open parameters to F.

[036] Logging Option - Option 1 - * OPEN *****

Set this parameter to F.

[037] Logging Option - Option 2 - Write Wire Link Errors (one liners) To System Console

Set this parameter to T to display one line of data for each command sent by the business system that is rejected by the ACC-4000. You can use this information to reconcile the errors.

This parameter corresponds to the Write wirelink errors to system console option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[038] Logging Option - Option 3 - Write Wire Link Transactions To Transaction File

Use this parameter to write the formatted transactions received from and sent to the business system into the Wire Link transaction file. Between 200 and 30,000 lines are stored, depending upon the maximum number of lines defined in parameter [057], Max Lines Per Transaction File. You can view the contents of this file to review Wire Link activity.

The transaction file is a circular file of a fixed size. After reaching the end of the file, newer records overwrite lines at the beginning of the file.

Set this parameter to one of the following values:

- T** Record transactions in the transaction file. The transaction file name is wl#trans.dat, where # is the number of the Wire Link. For example, if there are two Wire Links, the transaction files are named wl1trans.dat and wl2trans.dat.
- F** Do not record transactions in the transaction file.

This parameter corresponds to the Record transactions to transaction file option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[039] Logging Option - Option 4 - Write Wire Link Transactions To Wire Link CRT

Use this parameter to display Wire Link transactions on the Wire Link Monitor screen. This enables you to view the activity of only Wire Link communications. All transactions display on the ACC-4000 Logger screen.

Set this parameter to one of the following values:

- T** Display Wire Link transactions on the Wire Link Monitor screen.
- F** Do not display Wire Link transactions on the Wire Link Monitor screen.

The recommended setting is T.

This parameter corresponds to the Write transactions to wirelink CRT option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[040] Logging Option - Option 5 - Write Wire Link Transactions To Screen CRT (this crt)

Use this parameter to redirect the output sent to the Wire Link Monitor on the screen of another logged in terminal. You can specify the port of the destination terminal on the field on the Business System Gateway Log Options screen. Otherwise the port is defined by parameter [003], CRT Port To Attach To (07 = tt7, 08 = tt10, 09 = tt11, 10 = tt12, 11 = tt13, etc.).

To enable this parameter, parameter [039] must also be T.

- T** Redirect Wire Link Monitor screen output to other logged-in terminal.
- F** Display Wire Link Monitor screen output only on the ACC-4000.

This parameter corresponds to the Write transactions to wirelink CRT option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[041] Logging Option - Option 6 - Display Brief Format

Use this parameter to display only four to seven lines of data for each transaction versus the nine to thirteen lines displayed in the full format mode. After you fully test the system, this speeds up transaction processing.

To use brief/brief format to display only two to three lines per transaction, you must enable this parameter and parameter [043], Logging Option - Option 8 - Display Brief/Brief Format.

T Use the brief format to display transactions on the Wire Link Monitor screen.

F Use the full format to display transactions on the Wire Link Monitor screen.

This parameter corresponds to the Display brief format option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[042] Logging Option - Option 7 - Return All Wire Link Errors To Host

Use this parameter to send all errors generated on the ACC-4000 to the business system or only the first error in the Return Status Message command, Record Type 001. Contact the business system personnel to determine whether to set this parameter to T or F.

Set this parameter to one of the following values:

T Report all errors generated by the Wire Link to the business system in the Return Status Message command.

F Return only the first error to the business system in the Return Status Message command.

This parameter corresponds to the Return all wirelink errors to host option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[043] Logging Option - Option 8 - Display Brief/Brief Format

Use this parameter to display only two to three lines of data for each transaction versus the four to seven lines displayed using the Brief display mode. After the system is fully tested, this speeds up transaction processing.

To enable this feature you must also set parameter [041], Logging Option - Option 6 - Display Brief Format, to T. You cannot set this parameter to T if parameter [041] is set to F.

T Use the brief/brief format to display transactions on the Wire Link Monitor screen.

F Do not use the brief/brief format to display transactions on the Wire Link Monitor screen. If parameter [041] is also T, the brief format is displayed.

This parameter corresponds to the Display brief/brief format option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[044] Logging Option - Option 9 - Misc Errors (non-critical) OK (if “f”, next option must be “t”)

Use this parameter to control whether the Wire Link ignores miscellaneous non-critical error messages. These are errors generated when the business system sends a field value that does not affect the database, such as a value that is invalid for the converter type or a service that does not exist.

Non-critical messages are listed in *Appendix A, System Messages*.

- T** Ignore non-critical errors.
- F** Do not ignore non-critical errors and send error information back to the business system. If this parameter is set to F, parameter [045], Logging Option - Option 10 - Display Misc (non-critical) Errors, must also be set to T.

The recommended setting is T.

This parameter corresponds to the Non-critical errors OK option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[045] Logging Option - Option 10 - Display Misc (non-critical) Errors

Use this parameter to display the miscellaneous non-critical error messages. These are errors generated when the business system sends a field value that does not affect the database, such as a value that is invalid for the converter type or a service that does not exist.

Non-critical messages are listed in *Appendix A, System Messages*.

You must set this parameter to T if parameter [044], Logging Option - Option 9 - Misc Errors (non-critical) OK (if “f”, next option must be “t”), is set to F.

Set this parameter to one of the following values:

- T** Display non-critical errors on the Wire Link Monitor screen.
- F** Do not display non-critical errors.

The recommended setting is T.

This parameter corresponds to the Display non-critical errors option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[046] Logging Option - Option 11 - *** OPEN ***

Set this parameter to F.

[047] Logging Option - Option 12 - Use PPV Module

Use this parameter to enable processing of the PPV Group Update commands 294 and 296 by the PPV module. The PPV module offloads purchase record transaction processing; therefore, the business system can download an additional set of purchase records before the system completes processing the previous set of records. This greatly speeds up processing on the ACC-4000.

Set this parameter to one of the following values:

- T** Use the PPV module to process PPV Group Update commands. This enables the business system to send additional PPV commands while the PPV module processes the previous set of authorizations.
- F** Do not use the PPV module.

This parameter corresponds to the Use PPV module option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

Wire Link parameter [233], PPV Module Installed, must also be set to T. Set parameter [233] to F to disable the PPV module.

[048] Logging Option - Option 13 - Display Current Statistics (does not reset counters)

This parameter corresponds to the Display current statistics (not reset counters) option on the Business System Gateway Log Options screen. You can use this option on the Business System Gateway Log Options screen to display statistics on demand.

This function is available on the Business System Gateway Log Options screen; however, the Wire Link ignores the configuration file parameter. It is recommended that you set this parameter to F.

[049] Logging Option - Option 14 - Update “Purchases” File With PPV Transactions

Use this parameter to write PPV purchases to the current purchase file. When purchases are written to the purchase file they are:

- Included in the processing of the DBPRINTDC report.
- Can be uploaded to the business system in response to the Purchase Upload – Request command, Record Type 310.

Set this parameter to one of the following values:

- T** Write PPV authorizations to the purchase file.
- F** Do not write PPV authorizations to the purchase file.

This parameter corresponds to the Update purchases file with PPV transactions option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

The following are related parameters:

- [125] Update “Purchases” File With PPV Transactions, Avoid Duplicates (ie service already assigned)
- [230] “Write PPV Purchases To File Allowed” (logging option) (0= not allowed,1= upgrade,2= downgrade, 3= both)
- [236] Changes To Update “Purchases” File With PPV Transactions Allowed ([049])

[050] Logging Option - Option 15 - Return PPV Statuses/Errors To Host (an array of “entries” size)

Use this parameter to control how messages related to the processing of events are sent to the business system in the Return Status Message command, Record Type 001, in response to the processing of the Pay-Per-View (PPV) commands, Record Types 294 and 296.

The setting of parameter [029], Debug Option - Option 10 - If PPV Module Used/Return Statuses, Wait For Actual Statuses (T), determines whether the actual status or error is available to be reported. If parameter [029] is set to F, the PPV status of an event is always reported as successful using message 107, PPV Group Update Entry Successful (nnnnnn/n) (snnnnn).

- T** The Return Status Message command contains a status or error message for each event processed by the command. The message can be status message 107 or an appropriate error message.
- F** Send the status or error message associated with only the first event processed.

For example, when the business system sends a command to process five events and an error occurs for only the fourth transaction, if this parameter is set to T, the Return Status Message command contains the following information:

- The Error Code field set to 107
- The Words To Follow field set to 4
- The four Data Word fields set to 107, 107, NNN, and 107, where NNN is the error that occurred for the fourth transaction

This parameter corresponds to the Return PPV statuses/errors to host option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

[051] Logging Option - Option 16 - Display PPV Statuses/Errors (one line per “entry”)

Use this parameter to display the status of each event authorization processed using the PPV commands on the Wire Link Monitor screen.

Set this parameter to one of the following values:

- T** Display the status of each event authorization processed by the PPV Group Update commands, Record Types 294 and 296. Each event authorization displays on a separate line.
- F** Do not display status of individual event authorizations.

This parameter corresponds to the Display PPV statuses/errors option on the Business System Gateway Log Options screen. The Business System Gateway Log Options screen can temporarily enable this option without rebooting the system.

Miscellaneous Parameters

[052] Seconds Between Checking For Wire Link Messages (2 numerics)

Set this parameter to a value from 1 through 10 to specify the number of seconds the system waits before checking that the business system sent a message. The Wire Link Monitor screen displays Wire Link Running or Wire Link Not Running after a period of time defined by this interval and parameter [054], Write “W Link Running/Not Running” On Wire Link CRT Every “N” Cycles ([052] not started, [053] started).

[053] Seconds Between Returning From Host If No Input Received (2 numerics)

Set this parameter to a value from 1 through 10 to specify the number of seconds the Wire Link waits to perform the I/O checking routine when no I/O is received from the business system. The Wire Link Monitor screen displays Wire Link Running after a period of time defined by this parameter and parameter [054], Write “W Link Running/Not Running” On Wire Link CRT Every “N” Cycles ([052] not started, [053] started).

[054] Write “W Link Running/Not Running” On Wire Link CRT Every “N” Cycles ([052] not started, [053] started)

Set this parameter to a value from 1 through 900. The recommended setting is 80.

If the Wire Link is running, the value of this parameter multiplied by the value of parameter [053], Seconds Between Returning From Host If No Input Received (2 numerics), determines the frequency that the Wire Link Monitor screen displays the message, “Wire Link Running.”

If the Wire Link is not running, the value of this parameter multiplied by the value of parameter [052], Seconds Between Checking For Wire Link Messages (2 numerics), determines the frequency that the Wire Link Monitor screen displays the message, “Wire Link Not Running.”

[055] Display Statistics Every “N” Minutes From 12 midnight (4 numerics, 1438 = 2 minutes to midnight)

Set this parameter to a value from 0 (zero) through 1439 to define the interval, in minutes, at which the Wire Link displays statistics.

The following table provides some commonly used values:

0	Tabulate statistics, but do not print them. Statistics are initialized when the system is booted.
360	Tabulate statistics and print them four times: at 6 a.m., at noon, at 6 p.m., and at midnight.
720	Tabulate statistics and print them twice: at noon and at midnight.
1438	Tabulate statistics and print them at 23:58, which is 11:58 p.m.

Statistics are reset to 0 (zero) each time they are printed or displayed using these values.

[056] Default Converter Type For Record Type 060 (can only be 1, 2, or 3)

Set this parameter to a value from 1 through 3 to indicate the converter type assigned to a set-top terminal added using the Converter Update command, Record Type 060. The Converter Update command does not enable you to specify a converter type.

This parameter is valid only for Record Type 060, Converter Update.

Because the 060 command includes very little data, the following parameters are also applicable to Record Type 060:

- [058] Default Remote For Record Type 060 (converter type 03 only)
- [066] Mixed System For Non-Adds (# 060)
- [079] Max Errors Allowed For “1-Second” Wire Link - Change Commands (# 060/170/262)
- [081] Max Errors Allowed For “1-Second” Wire Link - Add Commands (# 060/170/260)

[057] Max Lines Per Transaction File

Set this parameter to a value from 200 through 30,000 to define the maximum number of lines written to the Wire Link transaction file. Because the transaction file is circular, the oldest transaction records overwrite newer ones.

On the AH-4, every 4 lines in the file requires 1 block of disk space; therefore, 30,000 lines require 7500 blocks of disk space. You can reduce this value to 10,000 if your system has a small amount of available free disk space.

[058] Default Remote For Record Type 060 (converter type 03 only)

This parameter is valid for only Record Type 060 and Converter Type 03.

Set this parameter to one of the following values:

- T** Turn on the Remote option if the converter type is 03, the only PROM-based set-top terminal with the Remote option.
- F** Turn off the Remote option if the converter type is 03.

For all other commands, use parameters [067], Services For TCB Defined On Controller (remote, p.c. locked, etc), and [068], If Service Sent, SET Remote, Else RESET Remote.

Other parameters applicable only to processing Record Type 060 are listed in the description for parameter [056].

[059] Transmit Dummy Message To Host If Nothing From Host Every “N” Cycles ([053])

If the business system does not use a protocol converter, set this parameter to 0 (zero).

If the business system uses a protocol converter that must receive information from the controller regularly, set this parameter to a value from 0 (zero) through 8. The value of this parameter multiplied by the value of parameter [053], Seconds Between Returning From Host If No Input Received (2 numerics), determines the number of seconds of inactivity before the ACC-4000 sends command 000, Wake-Up Packet, to the business system.

If the communication problem is due to a protocol converter, the Wake-Up Packet command resumes communications with the ACC-4000.

When this is 0 (zero), a wake-up packet is never sent to the business system.

[060] * OPEN *****

Set this parameter to blanks.

[061] Always Do Initialize (# 264)

This parameter determines how the Wire Link processes a command or an instruction from the business system to initialize a set-top terminal.

Set this parameter to one of the following values:

- T** Perform a full initialize of the set-top terminal, even if it is already initialized. Any purchases in memory of an IPPV-capable set-top terminal are lost.
- F** If the set-top terminal has already been initialized, perform only a partial initialize. Partial initialization preserves purchases stored in memory of an IPPV-capable set-top terminal.

The recommended setting is F.

[062] Special RF Converter Initialize Flag - For Jerrold Use Only

This parameter controls how the Wire Link process an initialize command for a two-way set-top terminal. This parameter should be set to F and changed only by General Instrument personnel.

Set this parameter to one of the following values:

- T** When the business system sends a command to initialize a two-way set-top terminal, perform the initialization and set the Initialized field to Y despite whether the set-top terminal responds to the initialization.
- F** Set the Initialized field to Y only if the two-way set-top terminal responds to the initialization.

The recommended setting is F.

[063] 512k CONVID Option

Set this parameter to T when the ACC-4000 is configured to store more than 256K converter ID records.

For the ACC-4000, set this parameter to T.

[064] If Activate And Deactivate Bits Not Set, Use Default Activate From Default Record

Use this parameter to control how the ACC-4000 sets the Active field of a set-top terminal when bit 2, Activate, and bit 3, Deactivate, in the Encoded Action Word field are both set to 0 (zero) in the 060 and 170 commands.

The business system should send the correct value rather than relying on this parameter to set the value.

Set this parameter to one of the following values:

- T** Use the active status in the default record defined for the specified converter type on the ACC-4000.
- F** Set the status to Active.

[065] Already Initialized - If Converter Downloadable, Assume Already Initialized

Use this parameter to control whether the ACC-4000 sets the Initialized field to Y when a set-top terminal is added to the ACC-4000.

Set this parameter to one of the following values:

- T** When loading the database from the business system, set the Initialize field on the ACC-4000 to Y, but do not initialize a set-top terminal.
- F** Add the set-top terminal; but do not change the Initialize field.

[066] Mixed System For Non-Adds (# 060)

Use this parameter to control how the ACC-4000 processes an add command for different converter types using Record Type 060, Converter Update. For adds using Record Type 060, the ACC-4000 expects the converter type to match parameter [056], Default Converter Type For Record Type 060.

Also use parameter [099], Converter Type Mis-Match, to control how the ACC-4000 processes add commands for dissimilar converter types.

Set this parameter to one of the following values:

- T** Process the add command using Record Type 060 even if the converter type is different; do not generate an error message.
- F** Reject the command if the converter type is different.

Other parameters applicable only to processing Record Type 060 are listed in the description for parameter [056].

[067] Services For TCB Defined On Controller (remote, p.c. locked, etc)

This parameter enables you to control whether service numbers used to enable Terminal Control Block (TCB) options are actually stored as valid services. The following Wire Link parameters use service number to enable these TCB options:

- [068] If Service Sent, SET Remote, Else RESET Remote
- [069] If Service Sent, SET P.C. Locked, Else RESET P.C. Locked
- [070] If Service Sent, SET Favorite Channel, Else RESET Favorite Channel
- [071] If Service Sent, SET Volume Control, Else RESET Volume Control
- [109] If Service Sent, SET TCP, Else RESET TCP
- [110] If Service Sent, SET P.C. Morality, Else RESET P.C. Morality
- [111] If Service Sent, SET Autotest, Else RESET Autotest

Set this parameter to one of the following values:

- T** Assume that services are valid and defined on the ACC-4000.
- F** Assume that services are invalid and used only to enable the specified TCB option.

[068] If Service Sent, SET Remote, Else RESET Remote

This parameter enables you to enable or disable the Remote option by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to set this option. The ACC-4000 enables the option only when the set-top terminal is authorized for the specified service number.

Set this parameter to 0 (zero) to disable this feature.

[069] If Service Sent, SET P.C. Locked, Else RESET P.C. Locked

This parameter enables you to enable or disable the P.C. Lock option by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to set this option. The ACC-4000 enables the P.C. Locked option only when the set-top terminal is authorized for the specified service number.

Set this parameter to 0 (zero) to disable this feature.

[070] If Service Sent, SET Favorite Channel, Else RESET Favorite Channel

This parameter enables you to enable or disable the Favorite Channel option by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to set this option. The ACC-4000 enables the Favorite Channel option only when the set-top terminal is authorized for the specified service number.

Set this parameter to 0 (zero) to disable this feature.

[071] If Service Sent, SET Volume Control, Else RESET Volume Control

This parameter enables you to enable or disable the Volume Control option for a set-top terminal by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to set this option. The ACC-4000 enables the Volume Control option only when the set-top terminal is authorized for the specified service number.

Set this parameter to 0 (zero) to disable this feature.

[072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)

Use this parameter to clear authorizations for events when the business system sends the 262 or the 462 command with bit 3 of the Status Word (1) field set to 1.

- T** Clear authorizations for events when the business system command contains the "clear both" instruction to remove both events and subscriptions.
- F** Do not clear authorizations for events in response to the "clear both" instruction. Ignore any 262 or 462 commands sent by the business system that clear these authorizations.

For the 260, 262, 460, and 462 commands, parameter [462], Host Sending Status Word 1 (T, F), must be set to T.

The following parameters also affect the processing of event and subscription deletions:

- [095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)

- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [120] Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [121] Stop Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status

[073] Display Error For RF Before Event, All After The Event

Use this parameter to display an error when the Wire Link receives purchases for an event that is not active or for an event that is over.

Set this parameter to one of the following values:

- T** Display event authorization errors.
- F** Do not display errors when events cannot be authorized.

The recommended setting is T.

Errors received prior to the event are for two-way converters that can purchase the event directly. If there is a valid reason for the error, advance the start time of the event or instruct the customer to re-order it when it becomes active.

Errors received after the event is over might indicate an incorrect start date and time or duration. This type of error occurs more frequently if you use Automatic Number Identification (ANI) or Audio Response Units (ARU).

[074] No Action Mode Allowed (debug option 15 [034])

This parameter is for use only by General Instrument personnel to perform test and diagnostic procedures.

Use this parameter to enable the use of:

- Parameter [034], Debug Option - Option 15 - No Action Mode (immediately return successful to host)
- The Immediately return successful to host option on the Business System Gateway Debug Options screen.

This parameter can have one of the following values:

- T** Accept the value of parameter [034] and enable the ACC-4000 operator to change the Immediately return successful to host option on the Business System Gateway Debug Options screen.
- F** Prevent the ACC-4000 operator from changing the Immediately return successful to host option on the Business System Gateway Debug Options screen and ignore the value of parameter [034].

The recommended setting is F.

[075] * OPEN *****

Set this parameter to blanks.

[076] Always Do Data Base Updates Even If No Changes

Use this parameter to control whether to always update the database with fields in a change converter command, regardless of whether the values changed.

Set this parameter to one of the following values:

- T** Update the database even if no changes were made. Use this to verify that the database is operating properly.
- F** Update the database only if there was a change.

The recommended setting is F.

[077] Always Do Punches (set “f” for host download)

Set this parameter to one of the following values:

- T** Send punches as required. This is the setting for normal Wire Link operation.
- F** Do not perform punches. Use this option when you are updating the ACC-4000 database by downloading values from the business system. For example, you can use this mode when restoring the database or changing controllers.

[078] * OPEN *****

Set this parameter to blanks.

[079] Max Errors Allowed For “1-Second” Wire Link - Change Commands (# 060/170/262)

Set this parameter to a value from 1 to 9999 to specify how many errors can occur during 1-second Wire Link processing of change converter commands. After the specified number of errors occurs, the Wire Link switches to normal processing.

The following are change converter commands processed using the 1-second Wire Link:

- Record Type 060, Converter Update
- Record Type 170, Converter Update (Serial/Account/Others)
- Record Type 262, Change Converter Information
- Record Type 462, Change Converter Information (expanded)

During normal Wire Link processing, the ACC-4000 sends a Return Status Message command, Record Type 001, to the business system after a command is processed. During 1-second Wire Link processing, the ACC-4000 sends a successful Return Status Message command to the business system before a command is processed. This increases the performance of the Wire Link. The ACC-4000 performs 1-second Wire Link processing only for change converter commands, PPV commands, and add converter commands.

Errors display on the Wire Link Monitor screen.

To enable 1-second Wire Link processing:

- Set parameter [027], Debug Option - Option 8 - Use “1-Second” Wire Link(s), to T or set the Use 1-Second wirelink(s) option on the Business System Gateway Debug Options screen to Y.
- Set parameters [079], [080], and [081] to values greater than 0 (zero).

[080] Max Errors Allowed For “1-Second” Wire Link - PPV Commands (# 294/296)

Set this parameter to a value from 1 to 9999 to specify how many errors can occur during 1-second Wire Link processing of Pay-Per-View commands. When the specified number of errors occur, the Wire Link switches to normal processing.

The following are PPV commands processed using the 1-second Wire Link:

- Record Type 294, PPV Group Update By Converter ID
- Record Type 296, PPV Group Update By Serial Number

During normal Wire Link processing, the ACC-4000 sends a Return Status Message command, Record Type 001, to the business system only after the complete processing of a command. During 1-second Wire Link processing, the ACC-4000 sends a successful Return Status Message command to the business system before the command is processed. This increases the performance of the Wire Link. The ACC-4000 performs 1-second Wire Link processing only for change converter commands, PPV commands, and add converter commands.

To enable 1-second Wire Link processing:

- Set parameter [027], Debug Option - Option 8 - Use “1-Second” Wire Link(s), to T or set the Use 1-Second wirelink(s) option on the Business System Gateway Debug Options screen to Y.
- Set parameters [079], [080], and [081] to values greater than 0 (zero).

[081] Max Errors Allowed For “1-Second” Wire Link - Add Commands (# 060/170/260)

The following are add commands that are processed using the 1-second Wire Link:

- Record Type 060, Converter Update
- Record Type 170, Converter Update (Serial/Account/Others)
- Record Type 260, Assign (Add) New Converter
- Record Type 460, Assign (Add) New Converter (expanded)

During normal Wire Link processing, the ACC-4000 sends a Return Status Message command, Record Type 001, to the business system only after the complete processing of a command. During 1-Second Wire Link processing, the ACC-4000 sends a successful Return Status Message command to the business system before the command is processed. This increases the performance of the Wire Link. The ACC-4000 performs 1-second Wire Link processing only for change converter commands, PPV commands, and add converter commands.

To enable 1-second Wire Link processing:

- Set parameter [027], Debug Option - Option 8 - Use "1-Second" Wire Link(s), to T or set the Use 1-second wirelink(s) option on the Business System Gateway Debug Options screen to Y.
- Set parameters [079], [080], and [081] to values greater than 0 (zero).

[082] Max Errors Allowed For System Errors With External PPV Module (0= no limit)

Set this parameter to 0 (zero).

[083] * OPEN *****

Set this parameter to blanks.

[084] Adds Allowed

Use this parameter to disable the business system from adding a set-top terminal. This can be useful when the ACC-4000 is in Refresh mode or when using a hotel/hospital system where adds should be restricted.

Set this parameter to one of the following values:

- T** Process add commands.
- F** Reject add commands. Send error message 131, Record Type Not Implemented Yet, in the Return Status Message command, Record Type 001.

The recommended setting is T.

[085] Changes Allowed

Set this parameter to T to disable the business system from changing information for a set-top terminal using the 060, 170, 262, and 462 commands. This can be useful when the ACC-4000 is in Refresh mode or when using a hotel/hospital system where changes should be restricted.

Set this parameter to one of the following values:

- T** Process change commands.
- F** Reject change commands. Send error message 131, Record Type Not Implemented Yet, in the Return Status Message command, Record Type 001.

The recommended setting is T.

[086] Deletes Allowed

Use this parameter to disable the business system from deleting set-top terminals during inventory control or when using a hotel/hospital system where deletes should be restricted.

Set this parameter to one of the following values:

- T** Process delete commands.
- F** Reject delete commands. Send error message 131, Record Type Not Implemented Yet, in the Return Status Message command, Record Type 001.

The recommended setting is T.

[087] Assign CONVID Only In These Partitions (binary - 5 would be 1st and 3rd partitions)

The Wire Link can restrict a set-top terminal from being added to specific partitions. You can use this feature to restrict multiple Wire Links from adding set-top terminals to the same partition or to reserve a specific partition for merging database records.

Set this parameter to the sum of the binary values in the following table associated with each partition that should be restricted:

Partition Number	Binary Value	DB Size	Partition Number	Binary Value	DB Size
1	1	32k	9	256	288k
2	2	64k	10	512	320k
3	4	96k	11	1024	352k
4	8	128k	12	2048	384k
5	16	160k	13	4096	416k
6	32	192k	14	8192	448k
7	64	224k	15	16384	480k
8	128	256k	16	32768	512k

For example, to enable the use of only partition 3, set this parameter to 4, which is the binary value associated with partition 3.

To enable the use of partitions 1, 4, and 5, set this parameter to the sum of $1 + 8 + 16 = 25$.

To enable the use of partitions 1 through 8, set this parameter to the sum of $1 + 2 + 4 + 8 + 16 + 32 + 64 + 128 = 255$.

[088] Host Sending Purchases Allowed In Record Type 170 (T, F)

Use this parameter to enable the business system to control the value of the Purchases Allowed field by sending bit 11 (Purchases Allowed) of the Encoded Action field in Record Type 170.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

The business system can also use commands 262 and 462 to enable a set-top terminal for purchases if parameter [192], Host Sending Purchases Allowed, is set to T.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[089] Do Not Send Any Errors Back To Host

Set this parameter to one of the following values:

- T** Send only successful Return Status Message commands to the business system.
- F** Enable Return Status Message commands with errors to be sent to the business system.

Set this parameter to T for business systems that abort or go into an error loop when the ACC-4000 rejects a transaction. The ACC-4000 displays the error when this parameter is set to T.

You can use this parameter when problems occur for a new release of business system software.

[090] Host Sending Command And Initialize Bit In Record Type 170 (adds/changes) (bit 13) (T, F)

Use this parameter to enable the business system to control the value of bit 13, (Also) Perform Initialization, of the Encoded Action Word field in Record Type 170, Converter Update (Serial/Account/Others).

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[091] Host Sending Clear Keys In Record Type 170 (0= no, 1= parental, 2= purchase, 3= both) (T, F)

Use this parameter to enable the business system to control the value of bit 12, Clear Parental/Purchase Key, of the Encoded Action Word field in Record Type 170, Converter Update (Serial/Account/Others).

Set this parameter to one of the following values:

- 0** Ignore this request when sent by the business system.
- 1** Clear only the Parental keys.
- 2** Clear only the Purchase keys.
- 3** Clear both the Purchase keys and the Parental Control keys.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[092] Blocking Factor For Purchase Upload (0/1, 2, or 3)

Set this parameter to a value greater than 0 (zero) to use blocking. Blocking reduces the time required to send data in response to the following commands sent by the business system:

- Purchase Upload – Request command, Record Type 310
- Pay Service Upload – Request command, Record Type 320
- Non-Responding Upload – Request command, Record Type 340

Ask your business system which blocking factor they support.

Set this parameter to one of the following values:

- 0 or 1** Indicates one record is sent to the business system in response to each command.
- 2** Indicates two records are sent to the business system in response to each command. This can reduce the time required to send the data by almost 50%.
- 3** Indicates three records are sent to the business system in response to each command. This can reduce the time required to send the data by almost 66%.

[093] Use Multiple Newbox Tasks (0/1= no, 2= yes)

This parameter enables multiple instances of NEWBOX to run. This speeds up transaction processing on the ACC-4000. NEWBOX is the program that punches the set-top terminals.

Set this parameter to one of the following values:

- 1** Do not use multiple NEWBOX tasks.
- 2** Use multiple NEWBOX tasks.

The recommended setting is 2.

[094] Transaction File Resides In Data Base Directory [100,100]

For the ACC-4000, set this parameter to F.

On the AH-4, setting this parameter to T stores the Wire Link transaction file in the user identification control (UIC) directory [100,100]. This reduces backup time.

[095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)

Set this parameter to one of the following values:

- T** Clear authorizations for subscriptions when the business system command contains the "clear both" instruction to remove both events and subscriptions.
- F** Do not clear authorizations for subscriptions in response to the "clear both" instruction. Ignore any 262 or 462 commands sent by the business system that clear these authorizations.

For the 262 and 462 commands, parameter [462], Host Sending Status Word 1 (T, F), must be set to T.

The following parameters also affect the processing of event and subscription deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [120] Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [121] Stop Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [222] Clear Events If Moved "From" This Converter Status
- [223] Clear Events If Moved "To" This Converter Status

[096] Initialize RF Converter If Active = N (normally will only initialize converter if active = y)

Set this parameter to one of the following values:

- T** Enable the business system to initialize a set-top terminal, even if it is not active.
- F** Enable the business system to initialize only active set-top terminals.

[097] Ignore 121 Error --- Service + and - / Assume + Service (for valley cable)

A single Wire Link command can authorize a set-top terminal for multiple service numbers. However, a Wire Link command must contain only one authorize or deauthorize instruction for a specified service number and set-top terminal. Some business systems authorize and deauthorize a set-top terminal for the same service number in the same command. This parameter determines how to process the authorizations/deauthorizations when they are contradictory.

Set this parameter to one of the following values:

- T** If the command authorizes and deauthorizes a set-top terminal for the same service number, authorize the set-top terminal for the service.
- F** If the command authorizes and deauthorizes a set-top terminal for the same service number, process the instructions in order. Therefore, if a command contains an authorize instruction followed by a deauthorize instruction for the same service number, the set-top terminal is deauthorized for the service.

[098] Truncate Input Serial Number To 10 Characters

Set this parameter to one of the following values:

- T** Replace the last two characters of the serial number sent by the business system with blanks.
- F** No truncation is performed.

[099] Converter Type Mis-Match (0 - 4 same as account mis-match, 5= prom based override, no display)

Use this parameter to control how the ACC-4000 processes an add converter command when the converter type being added does not match the specified converter type.

Set this parameter to one of the following values:

- 0** Process the command with normal error checking.
- 1** Display an error message and accept the converter type even though there is an error.
- 2** Do not display an error message and process the command even though there is an error.
- 3** N/A
- 4** Do not display an error message and ignore the converter type sent by the business system; use the default converter type or the current converter type.
- 5** PROM based override; do not display a message.

The recommended setting is 1.

If this parameter is greater than 0 (zero), the error message is not sent back to the business system.

[100] Serial Number Mis-Match (0 - 4 same as account mis-match, 5= prom based or 1st 10 override/no display)

Set this parameter to one of the following values:

- 0** Process the serial number with normal error checking.
- 1** Display an error message and accept the serial number even though there is an error.
- 2** Do not display an error message and process the command even though there is an error.
- 3** N/A
- 4** Do not display an error message and ignore the serial number sent by the business system; use the default serial number or the current serial number.
- 5** PROM based or first 10 character override; do not display a message.

The recommended setting is 1.

If this parameter is greater than 0 (zero), no error message is sent back to the business system.

[101] Account Number Mis-Match (0= normal, 1= allow/prt, 2= allow/dont prt, 3= override/prt, 4= ignore bs)

This parameter controls processing when the account number sent by the business system does not match the account number defined on the ACC-4000 and the system configuration file parameter [088], Account number allowed as keyed access, is set to T. This parameter is ignored if parameter [088] is set to F.

Set this parameter to one of the following values:

- 0** Process the command with normal error checking.
- 1** Display an error message and accept the account number even though there is an error.
- 2** Do not display an error message and process the command even though there is an error.
- 3** Display any error message and use the account number sent by the business system.
- 4** Do not display an error message and ignore the account number sent by the business system.

If this parameter is greater than 0 (zero), no error message is sent back to the business system.

The recommended setting is 1.

[102] Clear Parental And/Or Purchase Keys When Going From Active Status Of “N” To “Y”

Set this parameter to one of the following values:

- T** If the active status of a set-top terminal is changed from inactive to active, clear parental and purchase keys, if valid for the converter type.
- F** Do not clear keys when the status changes to active.

[103] Always Clear Keys When Any Valid Action Code Value Received

Use this parameter to control processing of the Clear Parental/Purchase Keys command, Record Type 265, received from the business system.

Set this parameter to one of the following values:

- T** Clear parental and purchase keys, if valid for the converter type, regardless of the value sent in Record Type 265.
- F** Process the command according to the values sent.

✓ The recommended setting is T.

[104] Replace Installation Date With Current Date For All Transactions (excluding refreshes)

Set this parameter to one of the following values:

- T** Set the install date to the current date after any transaction for the set-top terminal.
- F** Retain the installation date in the Install Date field.

[105] PROM/Serial Number Mis-Match Processing (for foxboro)

Set this parameter to one of the following values:

- T** For PROM-based set-top terminals (Converter Type 1, 2, and 3), override the current serial number with the value sent by the business system.
- F** Do not enable the business system to change the serial number of a PROM-based set-top terminal.

✓ [106] Allow Preauthorization Of RF Converters

Use this parameter to control whether two-way set-top terminals can purchase events that are defined, but not active, on the ACC-4000.

If this parameter is set to T, when the ACC-4000 receives a purchase for an event that is not active or defined, the purchase is stored until the event becomes active.

Set this parameter to one of the following values:

- T** Enable purchases of events that are not active.
- F** Do not enable purchases of events that are not defined for two-way set-top terminals.

The recommended setting is T even if you do not have two-way set-top terminals at your site.

[107] Wait For Punches For RF Converters (0= wait, 1= no wait, 2= no wait except non-change)

This parameter determines whether to perform the verification portion of a punch immediately or as part of the global cycle.

Set this parameter to one of the following values:

- 0** Wait for the verification portion for all commands.
- 1** Do not wait for the verification.
- 2** Perform the verification immediately except when the punch is not a change. If there are no changes to services, do not wait for the verification.

The recommended setting is 2 even if you do not have two-way set-top terminals at your site.

[108] Data Base Error 105/15 Processing (0= normal, 1= display/punch, 2= no display/punch)

Use this parameter to control how the ACC-4000 processes error 105 - Other Data Base Error (snnnnn) when snnnnn is equal to 15 - Invalid Service Number Found In Subscriber Record updated/added. This error is generated when the business system sends a change command with an authorization for an invalid service number. Although the set-top terminal is not authorized for the invalid service number, this parameter controls whether other changes in the command are processed.

Set this parameter to one of the following values:

- 0** Normal operation. Display the error and do not update the set-top terminal with any changes sent in the command.
- 1** Display the error and perform the changes sent for the set-top terminal.
- 2** Do not display an error and perform the changes sent for the set-top terminal.

The recommended setting is 1.

[109] If Service Sent, SET TCP, Else RESET TCP

Use this parameter to enable or disable the Time Control Programming (TCP) option by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to enable this option. The ACC-4000 enables the option only when the business system authorizes the set-top terminal for the specified service number. The TCP option is disabled when the set-top terminal is deauthorized for this service number.

Set this parameter to 0 (zero) to disable this feature.

[110] If Service Sent, SET P.C. Morality, Else RESET P.C. Morality

Use this parameter to enable or disable the P.C. Morality option by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to enable this option. The ACC-4000 enables the P.C. Morality option only when the set-top terminal is authorized for the specified service number. The option is disabled when the set-top terminal is deauthorized for this service number.

Set this parameter to 0 (zero) to disable this feature.

[111] If Service Sent, SET Autotest, Else RESET Autotest

Use this parameter to enable or disable the Autotest option by authorizing the set-top terminal for the specified service number.

Set this parameter to the service number used to enable this option. The ACC-4000 enables the Autotest option only when the set-top terminal is authorized for the specified service number. The option is disabled when the set-top terminal is deauthorized for this service number.

Set this parameter to 0 (zero) to disable this feature.

[112] * OPEN *****

Set this parameter to blanks.

[113] * OPEN *****

Set this parameter to blanks.

[114] Host Sending Phone Index (T, F)

Use this parameter to enable the business system to control the value of the Phone Index field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[115] Host Sending Hub Number (T, F)

Use this parameter to enable the business system to control the value of the Hub Number field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[116] * OPEN *****

Set this parameter to blanks.

[117] Invalid Service Sent By Host During PPV Command (0= normal, 1= proc/dis/punch, 2= rej/dis)

This parameter determines how the Wire Link processes an invalid service number in commands PPV Group Update By Converter ID, Record Type 294, and PPV Group Update By Serial Number, Record Type 296.

If this parameter is 1, the ACC-4000 authorizes the set-top terminal for the service number after the service becomes active. This enables set-top terminals to purchase events in advance.

Parameter [050], Logging Option - Option 15 - Return PPV Statuses/Errors To Host (an array of "entries" size) determines how and whether messages are reported to the business system.

Set this parameter to one of the following values:

- 0** Process the command. Display error message only if parameter [045], Logging Option - Option 10 - Display Misc (non-critical) Errors, is set to T.
- 1** Display error message 109; process the command and perform the punch, excluding the invalid service.
- 2** Display error message 109 and reject the entry.

The recommended setting is 1.

[118] Treat A Package As An Event (normally treated as a subscription)

Use this parameter to control whether a package is treated as a subscription or as an event when a change command is sent by the business system to clear events or to clear subscriptions.

Set this parameter to one of the following values:

- T Treat all packages as an event.
- F Treat all packages as a subscription.

The following parameters also affect the processing of event and subscription deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [120] Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [121] Stop Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [222] Clear Events If Moved "From" This Converter Status
- [223] Clear Events If Moved "To" This Converter Status

[119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)

Use this parameter to enable the business system to control the values of bit 11 (Clear Subscriptions) and bit 12 (Clear Events) in the Status Word (1) field sent in the following commands:

- Record Type 260, Assign (Add) New Converter
- Record Type 262, Change Converter Information
- Record Type 460, Assign (Add) New Converter (expanded)
- Record Type 462, Change Converter Information (expanded)

Set this parameter to one of the following values:

- T Read these instructions when sent by the business system. Parameter [462], Host Sending Status Word 1 (T, F), must be set to T.
- F Ignore these instructions when sent by the business system;

The following parameters also affect the processing of event and subscription deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)
- [120] Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [121] Stop Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status

[120] Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)

This parameter affects the processing of service numbers when the business system sends a change command with either the Clear Subscriptions or Clear Events bits set to 1.

Set this parameter to the starting service number in the range of service numbers associated with subscriptions. Services, events, and packages with a service number within this range are considered to be subscriptions during the deletion of subscriptions or events. Service numbers outside this range are considered events during the deletion of subscriptions or events.

Parameter [121] determines the ending service number in the range.

The following parameters also affect the processing of event and subscription deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status

[121] Stop Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e)

This parameter affects the processing of service numbers when the business system sends a change command with either the Clear Subscriptions or Clear Events bits set to 1.

Set this parameter to the ending service number in the range of service numbers associated with subscriptions. Services, events, and packages with a service number within this range are considered to be subscriptions during the deletion of subscriptions

or events. Service numbers outside this range are considered events during the deletion of subscriptions or events.

Parameter [120] determines the starting service number in the range.

The following parameters also affect the processing of event and subscription deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [095] Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status

[122] Display Full Error Messages (for fatal messages)

Use this parameter to control the type of error reporting used by the ACC-4000 when a transaction fails due to a mis-match in key fields sent by the business system. Wire Link messages are Informational, Errors, or Fatal. The classification of an error is provided in the message as displayed in the Logger window, the Wire Link Monitor screen, or the Wire Link Transaction Log. See *Appendix A, System Messages*, for more information.

Set this parameter to one of the following values:

- T** Use the long format to display 10 to 15 lines of messages indicating the possible causes for a failed transaction. Some corrective action is also included.
- F** Use a more brief format to display errors for fatal errors that caused a transaction to fail.

The recommended setting is T.

[123] Host Sending Tuning Type (T, F)

Use this parameter to enable the business system to control the value of the Tuning Type field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[124] Converter Type 09 Special Processing (0= normal, 1= ignore pc, 2= ignore fc, 3= ignore both)

Converter type 9 can have parental control or favorite channel, but not both. If the business system enables both, the Parental Control option overrides the Favorite Channel option by default. This parameter enables the ACC-4000 to change the default override for this converter type.

Set this parameter to one of the following values:

- 0 Normal processing (parental control yes/no, and favorite channel yes/no).
- 1 Ignore parental control if sent by the business system.
- 2 Ignore favorite channel if sent by the business system.
- 3 Ignore both values sent by the business system.

[125] Update “Purchases” File With PPV Transactions, Avoid Duplicates (ie service already assigned)

If parameter [049], Logging Option - Option 14 - Update “Purchases” File With PPV Transactions, is set to T, use this parameter to determine whether duplicate records are prevented from being written to the purchase file.

Set this parameter to one of the following values:

- T If parameter [049] is set to T, write PPV transactions to the purchase file but do not create duplicate records.
- F If parameter [049] is set to T, write PPV transactions to the purchase file but do not prevent duplicate records.

The following are related parameters:

- [049] Logging Option - Option 14 - Update “Purchases” File With PPV Transactions
- [230] “Write PPV Purchases To File Allowed” (logging option) (0= not allowed, 1= upgrade, 2= downgrade, 3= both)
- [236] Changes To Update “Purchases” File With PPV Transactions Allowed ([049])

[126] Update “Purchases” File With PPV Transactions Options (0=normal, 1=1st entry, 2=1st entry after 0 convid)

Use this parameter to determine which purchases the Wire Link writes to the purchase file when the number of converter IDs or serial numbers sent in the Pay-Per-View (PPV) commands, Record Types 294 and 296, do not match the number of Encoded Status Word fields.

Set this parameter to 0 (zero) to update the purchase file with all records sent.

[127] Services To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)

This parameter enables you to assign a channel map to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Channel Map field or when assigning channel maps by the business system is inappropriate.

If this feature is enabled, the system derives the channel map number using the following calculation:

Channel map = <service number> – <starting service number> + |<offset>|

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameter [128], Start Service To Channel Map Value (offset of 0), and parameter [129], Stop Service To Channel Map Value (specify “-” value if selecting last service encountered).
- <starting service number> is the value defined by parameter [128].
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- | | |
|--------------|---|
| 0 | Disable the feature. Use the channel map specified by the business system or use the default channel map defined for the converter type. |
| Not 0 | Calculate the channel map based on the service number offset by the absolute value of this parameter. If this is a negative value, the Wire Link assigns the calculated value, but does not authorize the set-top terminal for the service. |

For example, say the business system authorizes a set-top terminal for service 42 and the values of parameters [127], [128], and [129] are 2, 40, and 50, respectively. The calculation is $42 - 40 + 2$; therefore, the calculated channel map is 4.

[128] Start Service To Channel Map Value (offset of 0)

Set this parameter to the starting service number in the range of service numbers used to calculate the channel map for a set-top terminal.

This feature is enabled only if parameter [127] is not 0 (zero).

[129] Stop Service To Channel Map Value (specify “-” value if selecting last service encountered)

Set this parameter to the ending service number in the range of service numbers used to calculate the channel map for a set-top terminal. Precede this value with a minus sign (–) to base the channel map on the last service number in this range sent in the command.

This feature is enabled only if parameter [127] is not 0 (zero).

[130] Services To Purchasability Defined On Controller

Set this parameter to control whether a set-top terminal can purchase events based on an authorization for the service number specified by parameter [131], Service Purchasability Number.

Set this parameter to one of the following values:

- 0** The business system controls the ability of set-top terminals to purchase events.
- 1** Set-top terminals can purchase events only if authorized for the service number specified by parameter [131], Service Purchasability Number.

[131] Service Purchasability Number

Set this parameter to the service number used to enable a set-top terminal to purchase events.

[132] Service Purchasability Processing

You must set this parameter to 0 (zero).

This is reserved for future use.

[133] Host Sending Output Channel 3 (T, F)

Use this parameter to enable the business system to control the value of the Output Channel 3 field sent in the following commands:

- Record Type 260, Assign (Add) New Converter
- Record Type 262, Change Converter Information
- Record Type 460, Assign (Add) New Converter (expanded)
- Record Type 462, Change Converter Information (expanded)

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[134] Use Services To Channel Map If Sent, If Not, Use Host Values

Use this parameter to assign a channel map based on the services to channel map feature enabled by parameters [127] through [129] or to use the channel map value sent by the business system. When this parameter is enabled and the business system does not send a service number in the range of service numbers used to calculate the channel map, the ACC-4000 assigns the channel map sent by the business system.

Set this parameter to one of the following values:

- T** Calculate the channel map if the business system sends a service number in the range of service numbers defined by parameters [128] and [129]. Otherwise, assign the channel map sent by the business system.
- F** Do not accept the channel map sent by the business system. Assign the channel map only based on the channel map calculation or assign the channel map in the default record for the converter type.

You can also use the following parameters to calculate the channel map:

- [290] PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)
- [291] Start Event (294) To Channel Map Value (offset 0)
- [292] Stop Event (294) To Channel Map Value
- [302] Hub To Channel Map Defined On Controller (0=disabled) (add absolute value to offset of 0)
- [303] Start Hub To Channel Map Value (offset of 0)
- [304] Stop Hub To Channel Map Value

Note that the Wire Link performs these calculations in the sequence that the values are sent by the business system. If you use more than one of these parameters to calculate and assign the channel map, you could potentially overwrite one channel map assignment with another.

[135] Replace Installation Date With Current Date On Refresh

Set this parameter to one of the following values:

- T** Update the installation date with the current date when a refresh is performed.
- F** Do not update the installation date during a refresh.

Parameter [104], Replace Installation Date With Current Date For All Transactions (excluding refreshes), specifies whether to update the installation date for other types of transactions.

[136] Initialize Converter When An Add From Host

Set this parameter to one of the following values:

- T** Automatically initialize a set-top terminal when added by the business system.
- F** Initialize the set-top terminal only when specified in the add command.

[137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status

Set this parameter to two characters representing a converter status defined by the business system. When the business system sends a command that changes the converter status to this value for an IPPV-capable set-top terminal, the ACC-4000 changes the Initialize field to N and then performs the other changes requested in the command.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[138] Oak Protocol Mode

Set this parameter to one of the following values:

- T** Accept Oak format commands.
- F** Ignore Oak format commands.

[139] Oak Default Converter Type

Set this parameter to a value from 1 through 35 to define the default converter type for the Oak format when parameter [138] is set to T.

Set this parameter to 0 (zero) to disable this feature.

[140] Punch All Defined Subscriptions For STARFONE Converters

Use this parameter to control the type of punch generated for a STARFONE set-top terminal when the Wire Link receives a change command from the business system.

Set this parameter to one of the following values:

- T** Send a punch to update STARFONE set-top terminals with all options and services even if there were no changes for the set-top terminal. Punches are performed immediately when the command is received from the business system.
- F** Send a punch to STARFONE set-top terminals to update only the changes to services and options. Send all other changes in the global cycle.

The recommended setting is T even if you have no STARFONE set-top terminals.

[141] Refresh Mode - Write Differences To System Console

Set this parameter to one of the following values:

- T** Write the results of the comparison of field values performed during a Refresh to the System Console.
- F** Do not write the results of the comparison of field values performed during a Refresh to the System Console.

[142] Refresh Mode - Write Differences To WLTRANS.DAT File

Set this parameter to one of the following values:

- T** Record the comparison of field values performed during a Refresh in the Wire Link transaction file associated with this Wire Link.
- F** Do not record the refresh in the transaction file.

[143] Initialize Converter If Moved “From” This Converter Status

Set this parameter to two characters representing a converter status defined by the business system. If the business system sends a command to change the converter status of a set-top terminal from this value, the ACC-4000 initializes the set-top terminal instead of performing the command sent by the business system.

The ACC-4000 initializes an IPPV-capable set-top terminal if the business system changes the converter type to the value defined in parameter [137], Change Initialized To “N” If IPPV And Moved “To” This Converter Status.

Parameter [168], Initialize Converter If Moved “To” This Converter Status, determines whether to initialize a set-top terminal when the business system changes a converter status to a specified value.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[144] If Service Sent From Host, Do Initialize

Set this parameter to a service number used to invoke the ACC-4000 to initialize a set-top terminal when any command is sent by the business system.

Once the set-top terminal is authorized for this service number, each subsequent command sent will invoke an initialization until the set-top is deauthorized for the service. This parameter should be used only for business systems that do not have the capability of sending the initialize command.

[145] Host Sending Refresh Bit In Encoded Action Word (# 170)/Status Word (# 262) (T, F)

Use this parameter to enable the business system to control the values of bit 10 of the Encoded Action Word field in Record Type 170, Converter Update (Serial/Account/Others), and bit 13 of the Status Word (1) field in Record Types 262 and 462. *(To 1, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 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778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000)*

Set this parameter to one of the following values:

- T** Read these instructions when sent by the business system. For Record Types 262 and 462, Parameter [462], Host Sending Status Word 1 (T, F), must be set to T.
- F** Ignore the refresh command sent by the business system.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[146] Always Do Command And Initialize (all but delete command)

Use this parameter to invoke the ACC-4000 to perform the function requested in a change or an add command sent by the business system and then initialize a set-top terminal.

Set this parameter to one of the following values:

- T Perform an initialize instead of the command sent by the business system.
- F Perform an initialize only when specified in the command sent by the business system.

[147] Host Sending Record Type 284 (collect converter purchases) (T, F)

Use this parameter to enable the business system to initiate purchase collection by sending the Collect Purchases From Converter command, Record Type 284. The business system can send Record Type 284 if a set-top terminal exceeds its allowable number of purchases or before a set-top terminal is being disconnected.

Set this parameter to one of the following values:

- T Process command 284 when sent by the business system.
- F Reject command 284 when sent by the business system.

The recommended setting is T if the 284 command is supported by the business system software.

[148] Delete RF If Initialized Set To “N” (whether converter delete successful or not)

This parameter controls the processing of a Delete Converter command (Record Type 263) sent to delete a two-way set-top terminal when the Initialized field on the ACC-4000 is set to N.

Set this parameter to one of the following values:

- T When the business system sends Record Type 263 to delete a two-way set-top terminal, perform the delete if the Initialized field on the ACC-4000 is set to N.
- F When the business system sends Record Type 263 to delete a two-way set-top terminal, do not perform the delete if the Initialized field is set to N.

The recommended setting is T.

Parameter [150] controls the processing of a Delete Converter command (Record Type 263) for a two-way set-top terminal that does not respond.

[149] Maximum Records Scanned During Record Types 310 (upload restart) Or 280 (read db record)

Use this parameter to control how many records to scan when the business system requests a restart at record “N” in the following commands:

- Purchase Upload – Request (Record Type 310)
- Database Information Upload – Request (Record Type 280)
- Non-Responding Upload – Request (Record Type 340)

Set this parameter to a value from 0 (zero) through 9999. Be sure to specify a number of records that the business system can read before timing out. The recommended setting is 60, which is approximately 6 seconds.

[150] Delete Processing For RF (0= rpt err/no del, 1= rpt err/del, 2= don't rpt err/del)

Set this parameter to control the processing of a Delete Converter command (Record Type 263) for a two-way set-top terminal that does not respond.

Setting this parameter to 1 or 2 deletes the two-way set-top terminal regardless of whether the ACC-4000 receives a response.

Set this parameter to one of the following values:

- 0** If the set-top terminal does not respond, report the error; but do not delete it.
- 1** If the set-top terminal does not respond, report the error and perform the delete.
- 2** If the set-top terminal does not respond, do not report the error and perform the delete.

Parameter [148] controls the processing of a Delete Converter command (Record Type 263) sent to delete a two-way set-top terminal when the Initialized field on the ACC-4000 is set to N.

[151] Oak Protocol Debug Switch

Set this parameter to F.

This is for use only by General Instrument personnel.

[152] RF Collection Of Purchases (0= normal, 1= try/no err, 2= no try/no err)

This parameter defines the type of Data Collection from two-way set-top terminals that takes place when the ACC-4000 receives a Collect Purchases from Converter command, Record Type 284, from the business system.

Set this parameter to one of the following values:

- 0** Normal processing. Collect purchases as specified by the Collect Purchases command.
- 1** Try to collect purchases, but ignore any errors. Send a successful Return Status Message command, Record Type 001, to the business system.
- 2** Do not try to collect purchases. Send a successful Return Status Message command to the business system.

[153] STARFONE Collection of Purchases (0= normal, 1= no try/err, 2= no try/no err)

Set this value to 2.

- 0 Collect purchases as specified by the 284 command.
- 1 Do not try to collect purchases. Report the command was not successful in the Return Status Message command, Record Type 001.
- 2 Do not try to collect purchases. Report the command was successful in the Return Status Message command.

The recommended setting is 2, even if your site does not have FONE-way set-top terminals..

[154] Services To Hub Number Defined On Controller

Use this parameter to assign a hub number to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Hub Number field or when assigning hub numbers by the business system is inappropriate.

If this feature is enabled, the system derives the hub number using the following calculation:

$$\text{Hub number} = \text{<service number>} - \text{<starting service number>} + 1$$

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [155], Start Service To Hub Number Value (offset of 0), and [156], Stop Service To Hub Number Value.

Precede parameter [156] with a minus sign (–) to assign the hub number based on the last service number in this range sent in the command.

- <starting service number> is the value defined by parameter [155].

Set this parameter to one of the following values:

- T Assign the calculated value and authorize the set-top terminal for the service.
- F Assign the calculated value and use the service number to perform the calculation, but do not authorize the set-top terminal for the service.

[155] Start Service To Hub Number Value (offset of 0)

Set this parameter to the starting service number in the range of service numbers used to calculate the hub number for a set-top terminal.

[156] Stop Service To Hub Number Value

Set this parameter to the ending service number in the range of service numbers used to calculate the hub number for a set-top terminal. Precede this value with a minus sign (–) to base the hub number on the last service number in this range sent in the command.

[157] * OPEN *****

Set this parameter to blanks.

[158] * OPEN *****

Set this parameter to blanks.

[159] * OPEN *****

Set this parameter to blanks.

[160] Services To Phone Index Defined On Controller (0= disabled) (add absolute value to offset of 0)

Use this parameter to assign a phone index to a FONE-way set-top terminal based on a specified service number. You can use this feature if the business system does not support the Phone Index field or when assigning the phone index by the business system is inappropriate.

If this feature is enabled, the system derives the phone index using the following calculation:

Phone index = <service number> – <starting service number> + |<offset>|

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [161], Start Service To Phone Index Value (offset of 1), and [162], Stop Service To Phone Index Value.

Set parameter [162] to a positive value (+) to base the phone index on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the phone index on the last service number in this range sent in the command.

- <starting service number> is the value defined by parameter [161], Start Service To Phone Index Value (offset of 1).
- <offset> is the value assigned to this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the phone index specified by the business system or use the default phone index defined for the converter type.
- Not 0** Calculate the phone index based on the service number offset by the absolute value of this parameter. If this is a negative value, the Wire Link assigns the calculated value, but does not authorize the set-top terminal for the service.

[161] Start Service To Phone Index Value (offset of 1)

Set this parameter to the starting service number in the range of service numbers used to calculate the phone index for a set-top terminal.

This feature is enabled only if parameter [160] is not 0 (zero).

[162] Stop Service To Phone Index Value

Set this parameter to the ending service number in the range of service numbers used to calculate the phone index for a set-top terminal. Set this parameter to a positive value (+) to base the phone index on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the phone index on the last service number in this range sent in the command.

This feature is enabled only if parameter [160] is not 0 (zero).

[163] Use Old Hub To Sub Algorithm

Set this parameter to F. This parameter is not used by the ACC-4000.

[164] Timeout On Intertask Communication (to newbox or poll tasks)

This parameter defines the maximum time for processing before the Wire Link must send a response to prevent a timeout on the business system.

You must set this parameter to a value from 20 through 120. The recommended setting is 40.

[165] * OPEN - 1 CHAR *** (***** START OF 3.45 VALUES *****)**

Set this parameter to blanks.

[166] For Purchases Allowed, Only Punch That Value If Nothing Else Changed (versus full change)

Set this parameter to one of the following values:

- T** If Purchasability or credit limit is being changed, update the set-top terminal only with those values if no other information has changed.
- F** Perform full change punches.

[167] Write “Wire Link Running/Not Running” To System Console Every “N” Minutes (0 to 1439)

This parameter determines how often the message Wire Link Running or Wire Link Not Running is written to the Wire Link Monitor screen.

The recommended setting is 60.

[168] Initialize Converter If Moved “To” This Converter Status

Set this parameter to two characters that represent a converter status defined by the business system. If the business system sends a command to change the converter status of a set-top terminal to this value, the ACC-4000 initializes the set-top terminal instead of performing the command sent by the business system. Note that the ACC-4000 database is updated prior to the initialization punch.

A set-top terminal capable of IPPV might also be initialized if the converter type is changed to a value defined in parameter [137], Change Initialized To “N” If IPPV And Moved “To” This Converter Status.

Parameter [143], Initialize Converter If Moved “From” This Converter Status, determines whether a set-top terminal is initialized when the converter status is changed from a specified value.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[169] Initialize Converter If Account Field Changes

Use this parameter to initialize a set-top terminal when the Account Number field is changed.

Set this parameter to one of the following values:

- T** If the account number sent by the business system does not match the account number defined for the set-top terminal in the ACC-4000 database, initialize the set-top terminal.
- F** Do not initialize the set-top terminal when a different account number is sent.

[170] * OPEN *****

Set this parameter to blanks.

[171] * OPEN *****

Set this parameter to blanks.

**[172] Host Sending Command And Initialize Bit In Record Type 260
(add) (bit 10) (T, F)**

Use this parameter to enable the business system to control the value of bit 10 (Command Add/Change And Initialize) of the Status Word field sent in the 260 and 460 commands.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

**[173] Host Sending Command And Initialize Bit In Record Type 262
(change) (bit 10) (T, F)**

Use this parameter to enable the business system to control the value of bit 10 of the Status Word (1) field sent in Record Types 262 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system. Parameter [462], Host Sending Status Word 1 (T, F), must also be set to T.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[174] Host Sending Telephone Number (T, F)

Use this parameter to enable the business system to control the value of the Telephone Number field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[175] Host Sending Purchase Limit (T, F)

Use this parameter to enable the business system to control the value of the Purchase Limit field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[176] Host Sending Timeout (T, F)

Use this parameter to enable the business system to control the value of the Timeout Limit field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[177] Host Sending Emergency Alert (T, F)

Use this parameter to enable the business system to control the value of the Emergency Alert Mask field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[178] Host Sending Converter Status (T, F)

Use this parameter to enable the business system to control the value of the Converter Status field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[179] Host Sending Channel Map (T, F)

Use this parameter to enable the business system to control the value of the Channel Map field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[180] Host Sending Amplifier (6 characters for 260/262, 12 characters for 460/462 commands) (T, F)

Use this parameter to enable the business system to control the value of the Amplifier field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[181] * OPEN *****

Set this parameter to blanks.

[182] Host Sending “Convert Command Into An Initialize” In Record Type 170 (bit 7) (T, F)

Use this parameter to enable the business system to send bit 7 (Change Command Into An Initialize) of the Encoded Action Word field in Record Type 170.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore the value when sent by the business system.

[183] Host Sending Account Number (T, F)

Use this parameter to enable the business system to control the value of the Account Number field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[184] Host Sending Time Zone (T, F)

Use this parameter to enable the business system to control the value of the Time Zone field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[185] Host Sending CONVID (T, F)

Use this parameter to enable the business system to control the value of the Converter ID field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[186] Host Sending Input Frequency Map (460/462 command) (T, F)

Use this parameter to enable the business system to control the value of the Input Frequency Map field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[187] Host Sending Output Frequency Map (460/462 command) (T, F)

Use this parameter to enable the business system to control the value of the Output Frequency Map field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[188] Host Sending Frequency Map (260/262 command) (T, F)

Use this parameter to enable the business system to control the value of the Frequency Map field sent in Record Types 260 and 262.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[189] Host Sending 12V Aux (T, F)

Use this parameter to enable the business system to control the value of the Aux 12V Option field for an international set-top terminal sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[190] *** OPEN ***

Set this parameter to blanks.

[191] Host Sending Output Channel 3 For International Converters (T, F)

Use this parameter to enable the business system to control the value of the Output Channel 3 field for an international set-top terminal sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system for an international set-top terminal.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[192] Host Sending Purchases Allowed (T, F)

Use this parameter to enable the business system to control the value of bit 1 (Purchases Allowed) of the Status Word (1) field sent in Record Types 260, 262, 460, and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

For the 460 and 462 commands, parameter [462], Host Sending Status Word 1 (T, F) must be set to T.

[193] * OPEN *****

Set this parameter to blanks.

[194] NEWBOX “update” Mode (i.e., newbox does the database update)

This parameter can increase Wire Link performance by offloading database updates to NEWBOX for commands that change only active status, Terminal Control Block options, or service authorizations.

Set this parameter to one of the following values:

- T** NEWBOX updates the database record and sends the punch to the set-top terminal.
- F** Wire Link updates the database. NEWBOX reads the database to update the set-top terminal.

The recommended setting is F.

[195] NEWBOX “quick” Mode (i.e., no database get)

This parameter enables you to increase NEWBOX performance by reducing the number of database reads for commands that change only active status, Terminal Control Block options, or service authorizations. Set this parameter to one of the following values:

- T** Wire Link updates the database and provides complete information to NEWBOX to update the set-top terminal. NEWBOX updates the set-top terminal but does not have to read or update the database.
- F** Wire Link updates the database. NEWBOX reads the database to update the set-top terminal.

The recommended setting is F.

[196] Refresh Mode - Print Differences Not Controlled By [197]..[206], [557]..[574]

Use this parameter to display differences between values stored on the ACC-4000 and the corresponding values sent in a change converter information command. This parameter affects only field values whose refresh processing is not specified by parameters [197] through [206] and [557] through [574]. Change converter information commands include Record Types 262 and 462.

Wire Link configuration file parameters [197] through [206] and [557] through [574] determine whether differences for specific fields should be displayed after a refresh.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled. The business system can invoke a refresh if parameter [145], Host Sending Refresh Bit In Encoded Action Word (# 170)/Status Word (# 262) (T, F), is set to T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

Set this parameter to one of the following values:

- T** Display differences in values that are changed which are not specified by Wire Link parameters [197] through [206] and [557] through [574].
- F** Display differences for values that have been specifically identified by Wire Link parameters [197] through [206] and [557] through [574].

[197] Refresh Mode - Print Differences In Services

Use this parameter to display differences between services defined for a set-top terminal on the ACC-4000 and the corresponding services sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the services stored on the ACC-4000 and the corresponding field values sent in Record Types 262 and 462.
- F** Do not display differences in services.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[198] Refresh Mode - Print Differences In Account Numbers

Use this parameter to display differences between the account number defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the account number stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[199] Refresh Mode - Print Differences In Converter Status

Use this parameter to display differences between the converter status defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the converter status stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[200] Refresh Mode - Print Differences In Phone Index

Use this parameter to display differences between the phone index defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the phone index stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[201] Refresh Mode - Print Differences In Hub Number

Use this parameter to display differences between the hub number defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the hub number stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[202] Refresh Mode - Print Differences In TCB

Use this parameter to display differences between the terminal control block (TCB) options defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the terminal control block (TCB) options that have been enabled for a set-top terminal on the ACC-4000 and the corresponding field values sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[203] Refresh Mode - Print Differences In Purchase Limit, Purchases Allowed

Use this parameter to display differences between the purchase limit defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the purchase limit stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[204] Refresh Mode - Print Differences In Tuning Type, Output Channel 3, Channel Map

Use this parameter to display differences between the tuning type, the output channel 3, and the channel map defined for a set-top terminal on the ACC-4000 and the corresponding values sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the tuning type, the output channel 3, and the channel map stored on the ACC-4000 and the corresponding values sent in Record Types 262 and 462.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[205] Refresh Mode - Print Differences In Amplifier, Master/Slave Status/Code

Use this parameter to display differences between the amplifier and the Master/Slave Status/Code defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T** Display differences between the amplifier stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[206] Refresh Mode - Print Differences In Active, Initialized

Use this parameter to display differences between the active status and the initialized status defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T, or the Refresh Mode - Display Differences option on the Business System Gateway Debug Options screen must be enabled.

Set this parameter to one of the following values:

- T Display differences between the active status and the initialized status stored on the ACC-4000 and the corresponding field values sent in Record Types 262 and 462.
- F Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[207] * OPEN ******

Set this parameter to blanks.

[208] * OPEN ******

Set this parameter to blanks.

[209] Send “System Busy” To Host If Backup In Progress (error 111)

When the ACC-4000 is being backed up, some business systems might not have the ability to wait an extended period of time with no response from the Wire Link.

If the Wire Link is left running, this parameter determines whether the Wire Link sends a response to the business system that it cannot process commands.

If the Wire Link is not running during a backup, no response is sent to a command from the business system.

Before you enable this feature, check whether the business system supports receipt of the 111 error message in the Return Status Message command, Record Type 001. If so, when the business system receives the 111 message, it should re-send the command every one minute until the ACC-4000 responds.

Set this parameter to one of the following values:

- T If Wire Link is running during a backup and the business system sends a command, send the Return Status Message command with the message 111, System Busy Can't Process Request Try Again Later.
- F Send no response to the business system if a backup is in progress.

The recommended setting is F.

[210] During Pay Service Download, Queue PPV Authorization Until PSL Is Finished

Set this parameter to T to process pay service records for services that have not been created on the ACC-4000.

Set this parameter to one of the following values:

- T** Queue authorizations for invalid services. Retry processing of invalid service authorizations after PSL processing .
- F** Generate an error when the business system sends an authorization for a service that does not exist.

[211] Close WLPSDL.DAT File “N” Minutes After Last Pay Service Download Command Received (# 330)

Set this parameter to one of the following values:

- 0** Process Pay Service Download – Data commands normally. Do not close the download file unless in response to a command from the business system.
- Positive value** The maximum period, in minutes, that the ACC-4000 waits for the next record after receiving the Pay Service Download – Data command, Record Type 330, and before closing the download file.
- Negative value** Close the download file and resume PSL processing after each 330 command.

This accounts for business systems that do not send the end of file record to indicate the Pay Service Download – Data session is complete.

[212] * OPEN *****

Set this parameter to blanks.

[213] Write All Error Messages To System Console (excluding 070 errors)

Set this parameter to one of the following values:

- T** Display all errors except error 070, Converter ID Not Found CONVID = nnnnnnn/n, on the Wire Link Monitor screen.
- F** Do not display all errors.

The recommended setting is T.

[214] Write 070 Errors (convid not found) To System Console

Set this parameter to one of the following values:

- T** Display error 070, Converter ID Not Found CONVID = nnnnnnn/h, on the Wire Link Monitor screen.
- F** Do not display converter ID not found errors.

The recommended setting is T.

[215] * OPEN *****

Set this parameter to blanks.

[216] Start Writing At The Beginning Of The WLTRANS.DAT On Startup (else start where left off)

Set this parameter to one of the following values:

- T** Start writing at line one of the transaction log file wl#trans.dat, where # is the number of the Wire Link. If debugging a new Wire Link configuration, this setting enables you to view errors at the beginning of the file.
- F** This is the normal setting to record transactions in sequential order.

The recommended setting is F.

[217] Send Host Summary Data At EOF in 311 Packet (purchase upload)

This enables you to control whether summary data is included in the end-of-file packet sent in Record Type 311, Purchase Upload – Data.

Set this parameter to one of the following values:

- T** Send summary data in the end-of-file command.
- F** Do not send summary data.

The recommended setting is F.

[218] Send Host Summary Data At EOF in 321 Packet (pay service upload)

This enables you to control whether summary data is included in the end-of-file packet sent in Record Type 321, Pay Service Upload – Data.

Set this parameter to one of the following values:

- T Send summary data in the end-of-file command.
- F Do not send summary data.

The recommended setting is F.

[219] Return 396 Status/Error To Host For All Poll Errors During 284 Data Collection

Set this parameter to T to report message 396, Number Of Errors During Poll To Converter = xx, to the business system in the Return Status Message command, Record Type 001.

Set this parameter to one of the following values:

- T Report message 396 to the business system in the Return Status Message command.
- F Do not report message 396 to the business system.

Error 396 occurs during processing of the Collect Purchases From Converter command, Record Type 284, when the ACC-4000 receives no response from a two-way set-top terminal.

[220] * OPEN *****

Set this parameter to blanks.

[221] * OPEN *****

Set this parameter to blanks.

[222] Clear Events If Moved “From” This Converter Status

Set this parameter to a two-character converter status defined by the business system.

If the business system changes the converter status field when the set-top terminal is assigned this value, the ACC-4000 clears all event authorizations from the set-top terminal.

The following parameters also affect the processing of event deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [223] Clear Events If Moved “To” This Converter Status

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[223] Clear Events If Moved “To” This Converter Status

Set this parameter to a two-character converter status defined by the business system.

The system clears event authorizations from a set-top terminal if the converter status field is changed to this value.

The following parameters also affect the processing of event deletions:

- [072] Delete Events When Clear Both Sent From Host (# 262, status word bit 3)
- [118] Treat A Package As An Event (normally treated as a subscription)
- [119] Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11,12) (T, F)
- [222] Clear Events If Moved “From” This Converter Status

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[224] * OPEN *****

Set this parameter to blanks.

[225] *** OPEN ***

Set this parameter to blanks.

[226] Sync Packet Size Error Processing (0= normal, 1= >6, 2= >8 log to system console)

This parameter determines whether a Packet Size error is reported on the Wire Link Monitor screen. The error is 144, Sync Packet Size Error (snnnnn).

Set this parameter to one of the following values:

- 0 Do not check the sync packet size.
- 1 Report the error if the packet is over 6 characters, the normal size of a Synchronization command.
- 2 Report the error if the packet is over 8 characters. Also display the error on the system console.

The recommended setting is 0 (zero).

[227] Processing For Serial No. Already Assigned (0= err/prt, 1= err/ret/prt, 2= ret/prt, 3= ret)

This parameter determines how the system processes a command to add a set-top terminal that has already been added. Error 055, Serial Number Already Assigned, is generated during processing of the 260 and 460 commands.

Set this parameter to one of the following values:

- 0 Display the error and the converter ID on the Wire Link Monitor screen, report error 055 in the Return Status Message command, Record Type 001, and do not include the converter ID in the Return Status Message command.
- 1 Display the error and the converter ID on the Wire Link Monitor screen, report error 055 in the Return Status Message command, and include the converter ID in the Return Status Message command to the business system.
- 2 Display the error and the converter ID on the Wire Link Monitor screen and do not report the error to the business system.
- 3 Do not display the error on the Wire Link Monitor screen and do not report the error to the business system.

The recommended setting is 2.

[228] Processing For No CONVID Number (all 0's /1's) Sent By Business System (0= normal, 1= ret err, 2= ret convid)

Set this parameter to determine what information is reported to the business system when the ACC-4000 receives a change command (Record Types 262 and 462) with the converter ID field filled with all zeros or all ones.

Set this parameter to one of the following values:

- 0 Do not include the converter ID in the Return Status Message command, Record Type 001, and do not display an error on the Wire Link Monitor screen.
- 1 Include the converter ID assigned by the ACC-4000 in the Return Status Message command and display the error on the Wire Link Monitor screen.
- 2 Include the converter ID assigned by the ACC-4000 in the Return Status Message command and do not display an error on the Wire Link Monitor screen.

The recommended setting is 0 (zero).

[229] Item Checking For Record Type 330 (0= err/prt, 1= prt, 2= ignore, 3= debug file/ignore)

Use this parameter to control how errors are reported when they occur during processing of the Pay Service Download – Data command, Record Type 330.

Set this parameter to one of the following values:

- 0 Report the error in the Return Status Message command, Record Type 001, and display the error on the Wire Link Monitor screen.
- 1 Do not report errors in the Return Status Message command and display errors on the Wire Link Monitor screen.
- 2 Ignore item checking; do not generate errors for invalid pay service records. Use this setting only for debugging.
- 3 Ignore item checking; do not generate an error for invalid pay service records. Write all 330 records to the debug file, wpsdlxx.dat. Use this setting only for debugging or to review this data before PSL processing.

The recommended setting is 1.

[230] “Write PPV Purchases To File Allowed” (logging option) (0= not allowed, 1= upgrade, 2= downgrade, 3= both)

Set this parameter to one of the following values:

- 0 Do not update the purchase file with any records.
- 1 Write only service authorization records to the purchase file.
- 2 Write only service deauthorization records to the purchase file.
- 3 Write both authorization and deauthorization records to the purchase file.

The recommended setting is 2.

The following are related parameters:

- [049] Logging Option - Option 14 - Update “Purchases” File With PPV Transactions
- [125] Update “Purchases” File With PPV Transactions, Avoid Duplicates (ie service already assigned)
- [236] Changes To Update “Purchases” File With PPV Transactions Allowed ([049])

[231] Set Retry = T On Two-way Initialization Error (error 58)

Use this parameter to control whether the business system should retry sending a command when error 58, Converter Initialization Failed nnnnnnn/n ERR = snnn, is generated.

Set this parameter to one of the following values:

- T** When a two-way set-top terminal does not respond to an initialization command, set Bit 9 (Do Not Retry) of the Encoded Status Word field to 0 (zero) in the Return Status Message command. This indicates the business system should retry the command.
- F** When a two-way set-top terminal does not respond to an initialization command, set Bit 9 (Do Not Retry) of the Encoded Status Word field to 1.

[232] Set Retry = T On Two-way Non-responding Error (error 72)

Use this parameter to control whether the business system should retry sending a command when error 72, Two-Way Converter Not Responding CONVID = nnnnnnn/n, is displayed.

Set this parameter to one of the following values:

- T** When a two-way set-top terminal does not respond to a command that does not require initialization, set Bit 9 (Do Not Retry) of the Encoded Status Word field to 0 (zero) in the Return Status Message command. This indicates the business system should retry the command.
- F** When a two-way set-top terminal does not respond to a command that does not require initialization, set Bit 9 (Do Not Retry) of the Encoded Status Word field to 1.

[233] PPV Module Installed

Use this parameter in conjunction with parameter [047], Logging Option - Option 12 - Use PPV Module, to enable the processing of the PPV Group Update commands, Record Types 294 and 296.

Set this parameter to one of the following values:

- T** Enable the processing of PPV commands 294 and 296 using the PPV module. This enables the Wire Link to accept another PPV command when all authorizations sent in a previous PPV command are not yet processed.
- F** Disable the PPV module. This forces the ACC-4000 to process all authorizations sent in a PPV command before the Wire Link can accept another PPV command from the business system.

[234] Changes To Refresh Options Allowed ([025],[026])

Set this parameter to T to let the ACC-4000 operator change the following options on the Business System Gateway Debug Options screen:

- Refresh Mode - Update Differences, that corresponds to parameter [026], Debug Option - Option 7 - Refresh Mode - Update Differences
- Refresh Mode - Display Differences, that corresponds to parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences

Set this parameter to one of the following values:

- T** Let operators change the Refresh options on the Business System Gateway Debug Options screen.
- F** Prevent ACC-4000 operators from changing the Refresh options on the Business System Gateway Debug Options screen.

[235] Changes to Display Misc (non-critical) Errors Allowed ([045])

Use this parameter to control whether the ACC-4000 operator can change the Display non-critical errors option on the Business System Gateway Log Options screen. This option corresponds to parameter [045], Logging Option - Option 10 - Display Misc (non-critical) Errors.

Set this parameter to one of the following values:

- T** Let the ACC-4000 operator change the Display non-critical errors option on the Business System Gateway Log Options screen.
- F** Prevent ACC-4000 operators from changing the specified options on the Business System Gateway Log Options screen.

[236] Changes To Update “Purchases” File With PPV Transactions Allowed ([049])

Use this parameter to control whether the ACC-4000 operator can change the Update purchases file with PPV transactions option on the Business System Gateway Log Options screen. This option corresponds to parameter [049], Logging Option - Option 14 - Update “Purchases” File With PPV Transactions.

Set this parameter to one of the following values:

- T** Let the ACC-4000 operator change the Update purchases file with PPV transactions option on the Business System Gateway Log Options screen.
- F** Prevent ACC-4000 operators from changing the specified option on the Business System Gateway Log Options screen.

The following are related parameters:

- [049] Logging Option - Option 14 - Update “Purchases” File With PPV Transactions
- [125] Update “Purchases” File With PPV Transactions, Avoid Duplicates (ie service already assigned)
- [230] “Write PPV Purchases To File Allowed” (logging option) (0= not allowed, 1= upgrade, 2= downgrade, 3= both)

[237] Return Purchase Operation In 311 Packet (returns blank/1/2)

This parameter enables you to indicate in the Purchase Upload – Data command, Record Type 311, whether the specified purchase record is an authorization or a deauthorization for the service number.

Set this parameter to one of the following values:

- T** Use the Authorization Type field in Record Type 311 to indicate whether a purchase record is an authorization or deauthorization for a service.
- F** Do not indicate whether the purchase record is an authorization or a deauthorization in the Authorization Type field.

[238] Set Account Number To Blanks When Blanks Sent From Host

Use this parameter to set the value of the Account Number field to blanks when the Wire Link receives a command with a blank Account Number field from the business system.

Set this parameter to one of the following values:

- T** Set the Account Number field to blanks when a blank Account Number field is sent by the business system.
- F** Do not change the current account number. See the definition for the Account Number field in *Section 5, Field Descriptions*, in the *Wire Link Protocol Reference Guide*, for detailed information.

[239] Set Amplifier To Blanks When Blanks Sent From Host

Use this parameter to set the value of the Amplifier field to blanks when the Wire Link receives a command with a blank Amplifier field from the business system.

Set this parameter to one of the following values:

- T** Set the amplifier field to blanks when the business system sends a blank Amplifier field.
- F** Do not change the current value of the amplifier or use the Amplifier field defined in the default record for the converter type when the business system sends a blank Amplifier field.

[240] Set Converter Status To Blanks When Blanks Sent From Host

Use this parameter to fill the Converter Status field with blanks when the business system sends a blank Converter Status value.

Set this parameter to one of the following values:

- T** Set the Converter Status field to blanks when the business system sends a command with only blanks in the Converter Status field
- F** If the business system sends a command with only blanks in the Converter Status field, do not change the current value of the Converter Status or use the Converter Status field defined in the default record for the converter type.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)
- [330] Always Make Converter Status Equal (2 characters)

[241] Change Converter Type Group 1 - To Converter Type

Use this parameter to assign a different converter type to a set-top terminal when the business system sends an add command specifying a converter type in a defined range. This is useful when the business system does not support a specific range of converter types.

When this feature is enabled, any converter type in the group 1 range is changed to another converter type value using the following calculation:

Converter type = <to converter type> + (<converter type> – <converter group 1 start>)

where:

- <to converter type> is the value of this parameter. Set this to the converter type value that is calculated when the business system sends the first converter type in the range defined by parameters [242] and [243].
- <converter type> is the converter type sent by the business system.
- <converter group 1 start> is the value of parameter [242], Change Converter Type Group 1 - From Converter Type Start.

Set this parameter to one of the following values:

- 0** Disable this feature
- > 0** Calculate the converter type based on the above calculation when the converter type sent by the business system is within the range of converter types defined by parameters [242] and [243]. This value should be the converter type that is assigned when the business system sends the first converter type in the range.

For example, if the business system does not support converter types 36 to 38, you can set this parameter to 36, set parameter [242] to 21, and set parameter [243] to 23. When the business system sends an add command specifying converter type 22, the calculation is $(22-21) + 36 = 37$.

You can define a group 2 and a group 3 range of converter types using parameters [244] to [246] and [247] to [249], respectively.

[242] Change Converter Type Group 1 - From Converter Type Start

Set this parameter to a value from 0 (zero) through 99 to define the starting converter type in the range of converter types used to calculate the Group 1 converter type for a set-top terminal. The converter types defined for this range should be ones that are not being used.

This feature is enabled only if parameter [241] is greater than 0 (zero).

[243] Change Converter Type Group 1 - From Converter Type Stop

Set this parameter to a value from 0 (zero) through 99 to define the ending converter type in the range of converter types used to calculate the Group 1 converter type for a set-top terminal. The converter types defined for this range should be ones that are not being used.

This feature is enabled only if parameter [241] is greater than 0 (zero).

[244] Change Converter Type Group 2 - To Converter Type

Use this parameter to assign a different converter type to a set-top terminal when the business system sends an add command specifying a converter type in a defined range. This is useful when the business system does not support a specific range of converter types.

When this feature is enabled, any converter type in the group 2 range sent in an add command by the business system is changed to a value using the following calculation:

Converter type = <to converter type> + (<converter type> – <converter group 2 start>)

where:

- <to converter type> is the value of this parameter. Set this to the converter type value that is calculated when the business system sends the first converter type in the range defined by parameters [245] and [246].

- <converter type> is the converter type sent by the business system.
- <converter group 2 start> is the value of parameter [245], Change Converter Type Group 2 - From Converter Type Start.

Set this parameter to one of the following values:

- 0 Disable this feature
- > 0 Calculate the converter type based on the above calculation when the converter type sent by the business system is within the range of converter types defined by parameters [245] and [246]. This value should be the converter type that is assigned when the business system sends the first converter type in the range.

For example, if the business system does not support converter types 36 to 38, you can set this parameter to 36, set parameter [245] to 21, and set parameter [246] to 23. When the business system sends an add command specifying converter type 22, the calculation is $(22-21) + 36 = 37$.

You can define a group 1 and a group 3 range of converter types using parameters [241] to [243] and [247] to [249], respectively.

[245] Change Converter Type Group 2 - From Converter Type Start

Set this parameter to a value from 0 (zero) through 99 to define the starting converter type in the range of converter types used to calculate the converter type for a set-top terminal.

This feature is enabled only if parameter [244] is greater than 0 (zero).

[246] Change Converter Type Group 2 - From Converter Type Stop

Set this parameter to a value from 0 (zero) through 99 to define the ending converter type in the range of converter types used to calculate the converter type for a set-top terminal.

This feature is enabled only if parameter [244] is greater than 0 (zero).

[247] Change Converter Type Group 3 - To Converter Type

Use this parameter to assign a different converter type to a set-top terminal when the business system sends an add command specifying a converter type in a defined range. This is useful when the business system does not support a specific range of converter types.

When this feature is enabled, any converter type in the group 3 range sent in an add command by the business system is changed to a value using the following calculation:

Converter type = <to converter type> + (<converter type> – <converter group 3 start>)

where:

- <to converter type> is the value of this parameter. Set this to the converter type value that is calculated when the business system sends the first converter type in the range defined by parameters [248] and [249].

- <converter type> is the converter type sent by the business system.
- <converter group 3 start> is the value of parameter [248], Change Converter Type Group 3 - From Converter Type Start.

Set this parameter to one of the following values:

- 0** Disable this feature
- > 0** Calculate the converter type based on the above calculation when the converter type sent by the business system is within the range of converter types defined by parameters [248] and [249]. This value should be the converter type that is assigned when the business system sends the first converter type in the range.

For example, if the business system does not support converter types 36 to 38, you can set this parameter to 36, set parameter [248] to 21, and set parameter [249] to 23. When the business system sends an add command specifying converter type 22, the calculation is $(22-21) + 36 = 37$.

You can define a group 1 and a group 2 range of converter types using parameters [241] to [243] and [244] to [246], respectively.

[248] Change Converter Type Group 3 - From Converter Type Start

Set this parameter to a value from 0 (zero) through 99 to define the starting converter type in the range of converter types used to calculate the converter type for a set-top terminal.

This feature is enabled only if parameter [247] is greater than 0 (zero).

[249] Change Converter Type Group 3 - From Converter Type Stop

Set this parameter to a value from 0 (zero) through 99 to define the ending converter type in the range of converter types used to calculate the converter type for a set-top terminal.

This feature is enabled only if parameter [247] is greater than 0 (zero).

[250] Host Sending Record Type 500 (0= normal, 1= accept/no check, 2= reject)

This parameter is included for compatibility with previous versions of business system software. Set this parameter to 1 to enable the business system to send Record Type 500 that was used in an earlier version of the General Instrument Wire Link protocol, the AI-0 protocol.

The recommended value is 0 (zero).

[251] Pay Services Validation During PPV and Using External PPV Module (0= normal, 1= enabled)

When using the PPV Module, use this parameter to check whether service numbers are valid during processing of pay service authorizations sent in PPV Group Update commands, Record Types 294 and 296.

Set this parameter to one of the following values:

- 0 Do not check whether service numbers are valid.
- 1 Check whether service numbers are valid.

[252] Processing For 096 Error (service already selected) During PPV (0=ignore, 1=ret/prt/err, 2=ret/prt, 3=ret)

This parameter controls processing of the PPV Group Update commands, Record Types 294 and 296, when error 096, Serv # To Up Grade Already Selected (nnnnnnn/n) (snnnnn), is generated.

Set this parameter to one of the following values:

- 0 Ignore duplicate service authorizations during processing of the PPV Group Update commands, Record Types 294 and 296.
- 1 Report the error to the business system in the Return Status Message command, Record Type 001, display the error on the Wire Link Monitor screen, do not process the authorization.
- 2 Report the error to the business system in the Return Status Message command, display the error on the Wire Link Monitor screen.
- 3 Report the error to the business system in the Return Status Message command.

The recommended setting is 0 (zero).

[253] *** OPEN ***

Set this parameter to blanks.

[254] Update TCB Values With Business System Data Regardless Of Converter Type

Set this parameter to one of the following values:

- T Accept values for Terminal Control Block options from the business system regardless of whether the options are supported by the converter type.
- F Do not accept values if not valid for the converter type; do not generate an error.

[255] Valid MC Service Numbers Start (if mc only accept these services)

Set this parameter to the starting service number in the range of service numbers valid for Music Choice™. For set-top terminals that have Music Choice, the Wire Link does not authorize the set-top terminal for service numbers outside this range. The ending service number in the range is defined by parameter [256], Valid MC Service Numbers Stop (if mc only accept these services).

[256] Valid MC Service Numbers Stop (if mc only accept these services)

Set this parameter to the ending service number in the range of service numbers valid for Music Choice. For set-top terminals that have Music Choice, the Wire Link does not authorize the set-top terminal for service numbers outside this range. The starting service number in the range is defined by parameter [255], Valid MC Service Numbers Start (if mc only accept these services).

[257] Services To Frequency Map Defined On Controller

This enables you to assign the frequency map associated with a set-top terminal based on a specified service number. You can use this feature if the business system does not support frequency map numbers or when assignment of frequency maps by the business system is inappropriate.

If this feature is enabled, the system derives the frequency map number using the following calculation:

$$\text{Frequency map} = \text{<service number>} - \text{<starting service number>} + 1$$

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [258], Start Service To Frequency Map Value Defined on Controller (offset of 1), and [259], Stop Service To Frequency Map Value.

Set parameter [259] to a positive value (+) to assign the frequency map number based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to assign the frequency map number based on the last service number in this range sent in the command.

- <starting service number> is the value defined by parameter [258].

Set this parameter to one of the following values:

- | | |
|----------|---|
| T | Assign the calculated value and authorize the set-top terminal for the service. |
| F | Assign the calculated value and use the service number to perform the calculation, but do not authorize the set-top terminal for the service. |

[258] Start Service To Frequency Map Value Defined On Controller (offset of 1)

Set this parameter to the first service number in the range of service numbers used to calculate the Frequency Map number for a set-top terminal.

Parameter [259], Stop Service To Frequency Map Value, defines the ending service number in the range.

[259] Stop Service To Frequency Map Value

Set this parameter to the ending service number in the range of service numbers used to calculate the frequency map number for a set-top terminal. Precede this value with a minus sign (–) to base the frequency map number on the last service number in this range sent in the command.

Parameter [258], Start Service To Frequency Map Value Defined On Controller (offset of 1), defines the starting service number in the range.

[260] 1st Valid Start Converter ID For This Wire Link

Set this parameter to the starting converter ID in the range of converter IDs accessed by the business system using this Wire Link. Parameter [261], 1st Valid Stop Converter ID For This Wire Link, defines the ending converter ID in the range. The Wire Link rejects a command for a set-top terminal with a converter ID outside of this range.

To use this feature, parameter [363], Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both) must be set to value greater than 0 (zero).

Wire Link configuration file parameters [262] and [263] define a second range of valid converter IDs for this Wire Link.

[261] 1st Valid Stop Converter ID For This Wire Link

Set this parameter to the ending converter ID in the range of converter IDs accessed by the business system. Parameter [260], 1st Valid Start Converter ID For This Wire Link, defines the starting converter ID in the range. The Wire Link rejects a command for a set-top terminal with a converter ID outside of this range.

To use this feature, parameter [363], Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both), must be set to a value greater than 0 (zero).

Wire Link configuration file parameters [262] and [263] define a second range of valid converter IDs for this Wire Link.

[262] 2nd Valid Start Converter ID For This Wire Link

Set this parameter to the starting converter ID in the range of converter IDs accessed by the business system. Parameter [263], 2nd Valid Stop Converter ID For This Wire Link, defines the ending converter ID in the range. The Wire Link rejects a command for a set-top terminal with a converter ID outside of this range.

To use this feature, parameter [363], Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both) must be set to value greater than 0 (zero).

Parameters [260] and [261] define the first converter ID range.

[263] 2nd Valid Stop Converter ID For This Wire Link

Set this parameter to the ending converter ID in the range of converter IDs accessed by the business system. Parameter [262], 1st Valid Start Converter ID For This Wire Link, defines the starting converter ID in the range. The Wire Link rejects a command for a set-top terminal with a converter ID outside of this range.

To use this feature, parameter [363], Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both), must be set to a value greater than 0 (zero).

Parameters [260] and [261] define the first converter ID range.

[264] Initialize Converter If Change In Active Value (1= any change, 2= N to Y, 3= Y to N)

Use this parameter to control whether a set-top terminal is automatically initialized when the business system sends a command to change its active status.

Set this parameter to one of the following values:

- 0** Do not initialize the set-top terminal when the active status is changed.
- 1** Initialize the set-top terminal when the active status is changed.
- 2** Initialize the set-top terminal only when the active status is changed from N to Y.
- 3** Initialize the set-top terminal only when the active status is changed from Y to N.

The recommended setting is 0 (zero)

[265] Minutes Between Storing Statistical Counters (0-60)

Set this parameter to a value from 1 through 60 to define the interval, in minutes, when the system stores statistics to prevent them from being lost if the ACC-4000 is rebooted.

Set this parameter to 0 (zero) to disable this feature.

[266] Minutes Between Logging 111 Errors (0-60)

Set this parameter to a value from 1 through 60 to define how long, in minutes, after the Wire Link receives error 111, System Busy Can't Process Request Try Again Later, before the ACC-4000 enters another instance of the 111 message in the log. This can reduce the number of these errors reported when the business system continuously tries to communicate with the Wire Link after receiving the 111 error message.

Set this parameter to 0 (zero) to log all instances of the 111 error.

[267] Services To UHF Output Channel Number Group 1 Defined On Controller (0-disabled) (add absolute value to offset of 0)

This parameter enables you to assign the UHF Output Channel Number field to an international set-top terminal based on a specified service number. You can use this feature if the business system does not support the UHF Output Channel Number field or when assigning the UHF Output Channel Number by the business system is inappropriate.

If this feature is enabled, the system derives the UHF Output Channel Number using the following calculation:

$$\text{UHF Output Channel Number} = \langle \text{service number} \rangle - \langle \text{starting service number} \rangle + |\langle \text{offset} \rangle|$$

where:

- $\langle \text{service number} \rangle$ is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameter [268], Start Service To UHF Output Channel Number Group1 (offset of 0), and parameter [269], Stop Service To UHF Output Channel Number Group1 (positive if first service, negative if last).

Set parameter [268] to a positive value (+) to assign the UHF Output Channel Number field based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to assign the UHF Output Channel Number field based on the last service number in this range sent in the command.

- $\langle \text{starting service number} \rangle$ is the value defined by parameter [268].
- $|\langle \text{offset} \rangle|$ is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the UHF Output Channel Number field specified by the business system or use the default UHF Output Channel Number defined for the converter type.
- Not 0** Calculate the UHF Output Channel Number field based on the service number offset by the absolute value of this parameter. If this is a negative value, the ACC-4000 assigns the calculated value, but does not authorize the set-top terminal for the service.

For example, if the business system authorizes a set-top terminal for service 42 and the values of parameters [267], [268], and [269] are 2, 40, and 50, respectively, the calculation is $42 - 40 + 2$. Therefore, the calculated UHF Output Channel Number is 4.

[268] Start Service To UHF Output Channel Number Group 1 (offset 0)

Set this parameter to the starting service number in the range of service numbers used to calculate the UHF Output Channel Number for a set-top terminal.

This feature is enabled only if parameter [267] is not 0 (zero).

[269] Stop Service To UHF Output Channel Number Group 1 (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the UHF Output Channel Number field for a set-top terminal. Set this parameter to a positive value (+) to base the UHF Output Channel Number on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the UHF Output Channel Number on the last service number in this range sent in the command.

This feature is enabled only if parameter [267] is not 0 (zero).

[270] Disable IO When Wire Link Is Not Running

Set this parameter to T to disable data from the I/O port when the Wire Link is not running. This stops noise on the line from preventing the Wire Link from responding to the Start Wire Link request from the ACC-4000.

[271] * OPEN *******

Set this parameter to blanks.

[272] * OPEN *****

Set this parameter to blanks.

[273] * OPEN *****

Set this parameter to blanks.

[274] * OPEN *****

Set this parameter to blanks.

[275] Valid SEGA Service Numbers Start (if sega, only accept these services)

Set this parameter to the starting service number in the range of service numbers valid for Sega. For Sega set-top terminals, the Wire Link does not authorize the set-top terminal for service numbers outside this range. The ending service number in this range is defined by parameter [276].

[276] Valid SEGA Service Numbers Stop (if sega, only accept these services)

Set this parameter to the ending service number in the range of service numbers valid for Sega. For Sega set-top terminals, the Wire Link does not authorize the set-top terminal for service numbers outside this range. The starting service number in this range is defined by parameter [275].

[277] * OPEN *****

Set this parameter to blanks.

[278] * OPEN *****

Set this parameter to blanks.

[279] Converter Statuses To Match On For Non-Responding Upload Report (3 groups of 2 characters)

Use this parameter to specify up to three 2-character Converter Status values. When the business system sends the Non-Responding Upload – Request command, Record Type 340, only set-top terminals with the Converter Status specified in this parameter are included in the Non-Responding Upload – Data command, Record Type 341.

Set this parameter to six alphanumeric characters. You must type a space to represent all blanks. For example, the entry ABC represents the converter statuses AB, and C; the entry A BC represents the converter statuses A and BC; and so on.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [330] Always Make Converter Status Equal (2 characters)

[280] * OPEN *****

Set this parameter to blanks.

[281] * OPEN *****

Set this parameter to blanks.

[282] * OPEN *****

Set this parameter to blanks.

[283] 1st Return Error Code From Start

Set this parameter to the starting error message number in the range of error message numbers that are replaced in the Return Status Message command, Record Type 001, with the message defined by parameter [285], 1st Return Error Code To. Parameter [284], 1st Return Error Code From Stop, defines the ending message number in this range.

When any error in this range occurs, the error message number defined by parameter [285] is reported on the Wire Link Monitor screen and the Wire Link transaction log in place of the original message.

For example, if this parameter is set to 058 and parameter [285] is set to 071, when a command results in error 058, error message 071 is reported to the business system in the Return Status Message command, Record Type 001.

Parameters [286], 2nd Return Error Code From Start, and [287], 2nd Return Error Code From Stop, define another range of error messages replaced by the message specified by parameter [288], 2nd Return Error Code To.

Set this parameter to 0 (zero) to disable this feature.

The Wire Link monitor and the nightly statistics report the occurrence of the original error message. Therefore, you can cross check the message sent to the business system with the message displayed.

Error messages are listed in *Appendix A, System Messages*.

[284] 1st Return Error Code From Stop

Set this parameter to the ending error message number in the range of error message numbers replaced with another message. Parameter [285], 1st Return Error Code To, defines the replacement message. Parameter [283], 1st Return Error Code From Start, defines the starting message number in this range.

Error messages are listed in *Appendix A, System Messages*.

[285] 1st Return Error Code To

Set this parameter to the number of the error message that replaces any error message in the range of error messages defined by parameters [283], 1st Return Error Code From Start, and [284], 1st Return Error Code From Stop.

To enable this feature, parameter [283] must also be greater than 0 (zero).

Error messages are listed in *Appendix A, System Messages*.

[286] 2nd Return Error Code From Start

Set this parameter to the starting error message number in the range of error message numbers that are replaced in the Return Status Message command, Record Type 001, with the message defined by parameter [288], 2nd Return Error Code To. Parameter [287], 2nd Return Error Code From Stop, defines the ending message number in this range.

When an error in this range occurs, the error message number defined by parameter [288], 2nd Return Error Code To, is reported on the Wire Link Monitor screen and the Wire Link transaction log in place of the original message.

For example, if this parameter is set to 058 and parameter [288] is set to 071, when a command results in error 058, error message 071 is reported to the business system in the Return Status Message command, Record Type 001.

Parameters [283], 1st Return Error Code From Start, and [284], 1st Return Error Code From Stop, define another range of error messages replaced by the message specified by parameter [285], 1st Return Error Code To.

Set this parameter to 0 (zero) to disable this feature.

The Wire Link monitor and the nightly statistics report the occurrence of the original error message. Therefore, you can cross check the message sent to the business system with the message displayed.

Error messages are listed in *Appendix A, System Messages*.

[287] 2nd Return Error Code From Stop

Set this parameter to the ending error message number in the range of error message numbers replaced with another message. Parameter [288], 2nd Return Error Code To, defines the replacement message. Parameter [286], 2nd Return Error Code From Start, defines the starting message number in this range.

[288] 2nd Return Error Code To

Set this parameter to the number of the error message that will replace any error message in the second range of error messages defined by parameters [286], 2nd Return Error Code From Start, and [287], 2nd Return Error Code From Stop.

To enable this feature, parameter [286] must also be greater than 0 (zero).

Error messages are listed in *Appendix A, System Messages*.

[289] * OPEN *****

Set this parameter to blanks.

[290] PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0)

This parameter enables you to assign a channel map to a set-top terminal based on a PPV event number sent by the business system in the PPV Group Update By Converter ID command, Record Type 294. You can use this feature if the business system does not support the Channel Map field or when assigning channel maps by the business system is inappropriate.

If this feature is enabled, the system derives the channel map number using the following calculation:

$$\text{Channel map} = \langle \text{PPV event number} \rangle - \langle \text{starting PPV event number} \rangle + |\langle \text{offset} \rangle|$$

where:

- $\langle \text{PPV event number} \rangle$ is the service number sent by the business system. The PPV event number must be within the range of starting and ending service numbers defined by parameters [291], Start Event (294) To Channel Map Value (offset 0), and [292], Stop Event (294) To Channel Map Value.
- $\langle \text{starting PPV event number} \rangle$ is the value defined by parameter [291], Start Event (294) To Channel Map Value (offset 0).
- $|\langle \text{offset} \rangle|$ is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the event number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified event.

If parameter [293], Use “Cyclical” To Channel Map, is set to T and parameter [294], “Cyclical” Value, is greater than 0, this value is incremented by 1 each time the calculation is performed up to the number of cycles defined by parameter [294], “Cyclical” Value. When the number of cycles is reached, the value of this parameter is reset to its assigned value.

If parameter [295], Use “Add To” Existing Channel Map, is also set to T, the offset is incremented by the value of parameter [296], “Add To” Start Valid Target Channel Map Range, each time the channel map is calculated.

Set this parameter to one of the following values:

- | | |
|--------------|---|
| 0 | Disable the feature. Use the channel map specified by the business system or use the default channel map defined for the converter type. |
| Not 0 | Calculate the channel map based on the PPV number when the service number is in the range of event numbers specified by parameters [291] and [292]. |

[291] Start Event (294) To Channel Map Value (offset 0)

Set this parameter to the starting service number in the range of service numbers used to calculate the channel map for a set-top terminal. Specify service numbers associated with events rather than subscriptions.

This is enabled only if parameter [290] is not 0 (zero).

[292] Stop Event (294) To Channel Map Value

Set this parameter to the ending service number in the range of service numbers used to calculate the channel map for a set-top terminal. Specify service numbers associated with events rather than subscriptions.

This is enabled only if parameter [290] is not 0 (zero).

[293] Use “Cyclical” To Channel Map (eg. if 3 then 1001 is 10, 1002 is 11, 1003 is 12, 1004 is 10)

Set this parameter to T to increase the offset added to the channel map each time the channel map is assigned up to the number of cycles defined by parameter [294], “Cyclical” Value. After the channel map is calculated for the specified number of cycles, the offset used in the calculation is reset to the value of parameter [290], PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0).

The default increment is 1. However, if parameter [295], Use “Add To” Existing Channel Map, is set to T, the offset is incremented by the value of parameter [296], “Add To” Start Valid Target Channel Map Range.

Set this parameter to one of the following values:

- T** Increase the offset each time the channel map is calculated up to the number of times defined by parameter [294].
- F** Calculate the channel map based on the offset defined by parameter [290].

For example, if this parameter is set to T and parameter [294], “Cyclical” Value, is set to 3, the first time the channel map is calculated, the offset is increased by 1; the second time, the offset is increased by 2; the third time, the offset is increased by 3; the fourth time, the cycle is reset and the offset is increased by 1.

[294] “Cyclical” Value

If parameter [293], Use “Cyclical” To Chann Map (eg. if 3 then 1001 is 10, 1002 is 11, 1003 is 12, 1004 is 10, is enabled set this parameter to define the number of channel map calculations for which the offset is incremented before it is reset to its original value. The original value of the offset is defined by parameter [290], PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0).

The PPV to channel map calculation is included in the description of parameter [290].

[295] Use “Add To” Existing Channel Map

Set this parameter to T to increase the offset used to calculate the channel map by the value of parameter [296], “Add To” Start Valid Target Channel Map Range each time the channel map is calculated.

The original value of the offset is defined by parameter [290], PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0).

The PPV to channel map calculation is included in the description of parameter [290].

Set this parameter to one of the following values:

- T If parameter [293], Use “Cyclical” To Channel Map, is enabled, increment the offset used to calculate the channel map by the value defined by parameter [296].
- F If parameter [293] is enabled, increment the offset used to calculate the channel map by 1.

[296] “Add To” Start Valid Target Channel Map Range

Set this parameter to a value that is added to the offset used to calculate the channel map if parameter [293], Use “Cyclical” To Channel Map, is enabled.

Each time the channel map is calculated, the offset is increased by adding this value to the offset used in the previous channel map calculation. Parameter [297], “Add To” Stop Valid Target Channel Map Range, defines the maximum offset value.

The channel map calculation is included in the description of parameter [290], PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0).

[297] “Add To” Stop Valid Target Channel Map Range

Defines the maximum offset that can be used to calculate the channel map as shown in the description of parameter [290], PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0).

To use this parameter, you must enable parameter [293], Use “Cyclical” To Channel Map, and parameter [295], Use “Add To” Existing Channel Map.

When the offset used in the calculation exceeds this value, the offset is returned to its original value. The offset is again increased by the Add-to value during the next channel map calculation.

[298] *** OPEN ***

Set this parameter to blanks.

[299] Hub To MC Frequency Map Defined On Controller (0= disabled) (add absolute value to offset of 0)

This enables you to assign the frequency map associated with a set-top terminal based on a specified hub number. You can use this feature if the business system does not support frequency map numbers or when assignment of frequency maps by the business system is inappropriate.

If this feature is enabled, the system derives the frequency map number using the following calculation:

Frequency map = <hub number> – <starting hub number> + |<offset>|

where:

- <hub number> is the hub number specified in the command sent by the business system. The hub number must be within the range of starting and ending hub numbers defined by parameters [300] and [301].
- <starting hub number> is the value defined by parameter [300], Start Hub To MC Frequency Map Value (offset of 0).
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the hub number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and assigns the hub number to the set-top terminal.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the frequency map specified by the business system or use the default frequency map defined for the converter type.
- Not 0** Calculate the frequency map based on the hub number offset by the absolute value of this parameter.

[300] Start Hub To MC Frequency Map Value (offset of 0)

Set this parameter to a value from 1 through 99 to define the first hub number in the range of hub numbers used to calculate the frequency map number for a set-top terminal.

This feature is enabled only if parameter [299] is not 0 (zero).

[301] Stop Hub To MC Frequency Map Value

Set this parameter to a value from 1 through 99 to define the ending hub number in the range of hub numbers used to calculate the frequency map number for a set-top terminal.

This feature is enabled only if parameter [299] is not 0 (zero).

[302] Hub To Channel Map Defined On Controller (0= disabled) (add absolute value to offset of 0)

This enables you to assign the channel map associated with a set-top terminal based on a specified hub number. You can use this feature if the business system does not support channel map numbers or when assignment of channel maps by the business system is inappropriate.

If this feature is enabled, the system derives the channel map number using the following calculation:

Channel map = <hub number> – <starting hub number> + |<offset>|

where:

- <hub number> is the hub number specified in the command sent by the business system. The hub number must be within the range of starting and ending hub numbers defined by parameters [303] and [304].
- <starting hub number> is the value defined by parameter [303], Start Hub To Channel Map Value (offset of 0).
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the hub number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and assigns the hub number to the set-top terminal.

Set this parameter to one of the following values:

- | | |
|--------------|---|
| 0 | Disable the feature. Use the channel map specified by the business system or use the default channel map defined for the converter type. |
| Not 0 | Calculate the channel map based on the hub number offset by the value of this parameter. If this is a negative value, the Wire Link assigns the calculated value, but does not assign the hub number to the set-top terminal. |

[303] Start Hub To Channel Map Value (offset of 0)

Set this parameter to a value from 1 through 99 to define the first hub number in the range of hub numbers used to calculate the channel map number for a set-top terminal.

This feature is enabled only if parameter [302] is not 0 (zero).

[304] Stop Hub To Channel Map Value

Set this parameter to a value from 1 through 99 to define the ending hub number in the range of hub numbers used to calculate the channel map number for a set-top terminal.

This feature is enabled only if parameter [302] is not 0 (zero).

[305] Do (limited) Edit Checking Of Pay Service Downloads (0= normal, 1= err/ret/prt, 2= ret/prt)

This parameter specifies whether the Wire Link checks and reports the valid format of each field sent in pay service records in the Pay Service Download – Data command, Record Type 330.

Set this parameter to one of the following values:

- 0** Do not perform edit checking of fields in records sent in a Pay Service Download – Data command, Record Type 330.
- 1** Perform edit checking, report errors in the Return Status Message command, Record Type 001, and display errors on the Wire Link Monitor screen.
- 2** Perform edit checking, report errors in the Return Status Message command, Record Type 001, and display errors on the Wire Link Monitor screen.

The recommended setting is 0 (zero)

[306] Always Make Phone Index Equal (0 to 99) (# means ignore option)

Set this parameter to a value from 0 (zero) through 99 to define the value of the Phone Index field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[307] Always Make Hub Number Equal (0 to 99)

Set this parameter to a value from 0 through 99 to define the value of the Hub Number field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[308] * OPEN *****

Set this parameter to blanks.

[309] * OPEN *****

Set this parameter to blanks.

[310] Always Make Group Number Equal (0 to 180)

Set this parameter to a value from 0 (zero) through 180 to define the value of the Converter Group Number field for set-top terminals in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[311] Always Make Subgroup 1 Equal (0 to 180)

Set this parameter to a value from 0 (zero) through 180 to define the value of the Converter Subgroup 1 field for set-top terminals in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[312] Always Make Subgroup 2 Equal (0 to 180)

Set this parameter to a value from 0 (zero) through 180 to define the value of the Converter Subgroup 2 field for set-top terminals in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[313] Always Make Subgroup 3 Equal (0 to 180)

Set this parameter to a value from 0 (zero) through 180 to define the value of the Converter Subgroup 3 field for set-top terminals in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[314] Always Make Account Number Equal (not implemented)

This parameter is not implemented. Set this parameter to #.

[315] Always Make Telephone Number Equal (not implemented)

This parameter is not implemented. Set this parameter to #.

[316] Always Make Active Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Active field of a set-top terminal to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[317] Always Make Purchases Allowed Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Purchases field of a set-top terminal to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[318] Always Make Remote Equal (Y, N)

Set this parameter to one of the following values:

- Y** Always set the value of the Remote field to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[319] Always Make PC Locked Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Parental Ctrl Lock field of a set-top terminal to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[320] Always Make PC Morality Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Parental Ctrl Morality field of a set-top terminal to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[321] Always Make Volume Control Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Volume Control field of a set-top terminal to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[322] Always Make TCP Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Time/Time Controlled Prog field of a set-top terminal to Y in the ACC-4000 database.
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[323] Always Make Favorite Channel Equal (Y, N)

Set this parameter to one of the following values:

- Y** Set the Last/Favorite Channel of a set-top terminal to Y in the ACC-4000 database..
- N** Always set the value to N.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[324] Always Make Autotest Equal (not used)

Set this parameter to #.

[325] Always Make Purchase Limit Equal (0-16 for types 4, 6, 8, 11, 13 and 14; 0-63 for greater types)

Use this parameter to define the value of the Purchase Limit field in the ACC-4000 database.

Set this parameter to a value from 0 (zero) through 16 for converter types 4, 6, 8, 11, 13, and 14.

Set this parameter to a value from 0 (zero) through 63 for converter types above 14.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[326] Always Make Timeout Equal (2-384 in increments of 2)

Set this parameter to an even numbered value from 2 through 384 to define the value of the Timeout Limit field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[327] Always Make Emergency Alert Equal (16 bit binary, low order 7 bits used)

Set this parameter to a 16-bit binary numeric value to define the value of the Emergency Alert Mask field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[328] Always Make Tuning Type Equal (H, I, S)

Set this parameter to a 16-bit binary numeric value to define the value of the Tuning Type field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[329] Always Make Time Zone Equal (0 to 3)

Set this parameter to a 16-bit binary numeric value to define the value of the Time Zone field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[330] Always Make Converter Status Equal (2 characters)

Set this parameter to two alphanumeric characters to define the Converter Status field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

The following parameters also affect Wire Link processing related to the Converter Status field:

- [137] Change Initialized To “N” If IPPV And Moved “To” This Converter Status
- [143] Initialize Converter If Moved “From” This Converter Status
- [168] Initialize Converter If Moved “To” This Converter Status
- [178] Host Sending Converter Status (T, F)
- [222] Clear Events If Moved “From” This Converter Status
- [223] Clear Events If Moved “To” This Converter Status
- [240] Set Converter Status To Blanks When Blanks Sent From Host
- [279] Converter Statuses To Match On For Non-Responding Upload Report
(3 groups of 2 characters)

[331] Always Make Channel Map Equal (0 to 99)

Set this parameter to a 16-bit binary numeric value to define the value of the Channel Map field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[332] Always Make UHF Output Channel Number Equal (for international converters)

Wire Link:configuration file parametersSet this parameter to a 16-bit binary numeric value to define the value of the UHF Output Channel Number field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[333] * OPEN *****

Set this parameter to blanks.

[334] Always Make Output Frequency Map Equal (0 to 99) (460/462 Command)

Set this parameter to a 16-bit binary numeric value to define the value of the Output Frequency Map field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

**[335] Always Make Input Frequency Map Equal (0 to 99)
(460/462 Command)**

Set this parameter to a 16-bit binary numeric value to define the value of the Input Frequency Map field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[336] Always Make 12V Aux Equal (1= off, 2= controller by a/b switch, 3= on)

Set this parameter to one of the following values:

- 1 Turn off the 12V Aux Option.
- 2 Enable control of the 12V Aux Option using the a/b switch.
- 3 Turn on the 12V Aux Option.
- # Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[337] Always Make Amplifier Equal (6 characters)

Set this parameter to six alphanumeric characters to define the value of the Amplifier field in the ACC-4000 database.

If this parameter is enabled, when the business system sends the 460/462 command, this parameter overrides the 12-character Amplifier field with this 6-character value.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[338] Host Sending Group Number 1 (T, F)

Use this parameter to enable the business system to control the value of the Converter Group field for a set-top terminal.

Set this parameter to one of the following values:

- T Read the value when sent by the business system.
- F Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[339] Host Sending Subgroup 1 (T, F)

Use this parameter to enable the business system to control the value of the Converter Subgroup 1 field for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[340] Host Sending Subgroup 2 (T, F)

Use this parameter to enable the business system to control the value of the Converter Subgroup 2 field for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[341] Host Sending Subgroup 3 (T, F)

Use this parameter to enable the business system to control the value of the Converter Subgroup 3 field for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[342] Host Sending Active (T, F)

Use this parameter to enable the business system control the value of bit 2 (Activate/Deactivate) of the Field Status Word 1 field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system. Parameter [458], Host Sending Field Status Word 1 (T, F), must also be set to T.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[343] Host Sending Remote (T, F)

Use this parameter to enable the business system to control the value of bit 4 (Remote) of the Field Status Word 1 field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system. Parameter [458], Host Sending Field Status Word 1 (T, F), must also be set to T.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[344] Host Sending PC Locked (T, F)

Use this parameter to enable the business system send bit 0 (P.C. Locked) of the Field Status Word 2 field sent in Record Types 460 and 462.

Parameter [459], Host Sending Field Status Word 2 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[345] Host Sending PC Morality (T, F)

Use this parameter to enable the business system to control the value of bit 1 (P.C. Morality) of the Field Status Word 2 field sent in Record Types 460 and 462.

Parameter [459], Host Sending Field Status Word 2 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[346] Host Sending Volume Control (T, F)

Use this parameter to enable the business system to control the value of bit 2 (Volume Control) of the Field Status Word 2 field sent in Record Types 460 and 462.

Parameter [459], Host Sending Field Status Word 2 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[347] Host Sending TCP (time control programming) (T, F)

Use this parameter to enable the business system to control the value of bit 3 (Time Display/TCP) of the Field Status Word 2 field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system. Parameter [459], Host Sending Field Status Word 2 (T, F), must also be set to T.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[348] Host Sending Favorite Channel (T, F)

Use this parameter to enable the business system to control the value of bit 4 (Last/Favorite Channel) of the Field Status Word 2 field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system. Parameter [459], Host Sending Field Status Word 2 (T, F), must also be set to T.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[349] Host Sending Autotest (T, F)

Use this parameter to enable the business system to control the value of bit 5 (Autotest) of the Field Status Word 2 field sent in Record Types 460 and 462.

Parameter [459], Host Sending Field Status Word 2 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[350] * Open *****

Set this parameter to blanks.

[351] *** Open ***

Set this parameter to blanks.

[352] Host Sending Near Video On Demand (NVOD) (T, F)

Use this parameter to enable the business system to control the value of bit 3, Near Video On Demand (NVOD), of the Status Word 2 field sent in Record Types 460 and 462.

For the [460] and the [462] commands, parameter [463], Host Sending Status Word 2 (T, F), must be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[353] Host Sending Electronic Program Guide (EPG) (CFT-2900, StarSight) (T, F)

Use this parameter to enable the business system to control the value of bit 15 (Electronic Program Guide) of the Status Word 1 field sent in Record Types 460 and 462.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[354] **** OPEN ****

Set this parameter to blanks.

[355] **** OPEN ****

Set this parameter to blanks.

[356] ** OPEN ******

Set this parameter to blanks.

[357] ** OPEN ******

Set this parameter to blanks.

[358] Purchase Limit Processing (0= normal, 1= purchase limit only, 2= both)

Set this parameter to the following values:

- 0** Normal processing. Accept the purchase limit value sent by the business system.
- 1** Limit purchasing only to the purchase limit defined for the subscriber.
- 2** Limit purchasing according to both the purchase limit and according to the number of purchases allowed defined for the set-top terminal, or the value of parameter [360], Purchase Limit Value (0= default).

[359] Purchases Allowed (0= normal, 1= purchasability only, 2= both)

Set this parameter to the following values:

- 0** Normal processing. Accept the value of the Purchases Allowed field sent by the business system.
- 1** Limit purchasing only to the purchases allowed defined for the subscriber.
- 2** Limit purchasing according to both the purchase limit and according to the number of purchases allowed defined for the set-top terminal, or the value of parameter [360], Purchase Limit Value (0= default).

[360] Purchase Limit Value (0= default)

Set this parameter to a dollar amount or a maximum number of purchases depending on the system configuration file parameter [274], Use dollar credit limit (startrak) (F=Events, T=\$).

If the purchase limit is measured by the number of events, this can be set to:

- 0 to 16 for converter types 14 and under
- 0 to 63 for converter types 15 and above

If purchase limit is being measured according to a monetary amount, this field can be from 0 (zero) through 192.

Set this parameter to 0 (zero) to use the purchase limit defined for the set-top terminal.

[361] *** OPEN ***

Set this parameter to blanks.

[362] Ignore Protocol Sequence Errors (return sequence number sent by host)

Set this parameter to T to disregard protocol errors that occur when the record number sent by the business system does not match the record number that was expected to be received. This is useful when debugging new or changed business system software.

The recommended setting is F.

[363] Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both)

This parameter controls whether and how the Wire Link uses the converter ID ranges defined by the following parameters:

- [260], 1st Valid Start Converter ID For This Wire Link
- [261], 1st Valid Stop Converter ID For This Wire Link
- [262], 2nd Valid Start Converter ID For This Wire Link
- [263], 2nd Valid Stop Converter ID For This Wire Link

These parameters are useful for systems that use an additional Wire Link, such as a hotel or a hospital system.

Set this parameter to the following values:

- 0 Ignore the converter ID ranges defined by parameters [260] through [263].
- 1 Process commands sent by the business system only for converter IDs in the defined ranges.
- 2 Send information to the business system only for converter IDs in the defined ranges.
- 3 Do not process or send information from or to the business system for the defined ranges of converters IDs.

[364] Archive Current Purchase File At The End Of Successful Upload

Set this parameter to one of the following values:

- T Archive the purchase data file after all purchase records are sent to the business system using the Purchase Upload – Data command, Record Type 311.
- F Do not archive the purchase file.

Set this parameter to F for two-way set-top terminals used on a hotel business system. This prevents the main business system from losing the purchases after the upload is performed on the hotel business system.

[365] Upload Both Current And The Last “N” Archive Purchase File

Set this parameter to the number of archived purchase files the system will search in response to the Purchase Upload – Request command, Record Type 310, sent by the business system after all records from the active purchase file have been sent.

Use this parameter for two-way set-top terminals used on a hotel business system. This enables the hotel business system to retrieve the archived purchase files after the main business system performed a purchase upload. Parameter [364], Archive Current Purchase File At The End Of Successful Upload, controls whether the purchase file is archived after an upload.

Parameter [231], Maximum number of archival purchases, in the system configuration file, config.dat, defines the number of archived purchase files the system maintains.

[366] Services To Aux 12V Option Defined On Controller (1 to 3)

This parameter enables you to assign the value of the Aux 12V Option to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Aux 12V Option field or when assigning the Aux 12V Option by the business system is inappropriate.

If this feature is enabled, the system derives the value of the Aux 12V Option using the following calculation:

Aux 12V Option (1 to 3) = <service number> – <starting service number> + |<offset>|

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [367], Services To Aux 12V Option Start (1= off, 2= a/b switch, 3= on, and [368], Services To Aux 12V Option Stop (positive if first service, negative if last).

Set parameter [368] to a positive value (+) to calculate the value of the Aux 12V Option based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the value based on the last service number.

- <starting service number> is the value defined by parameter [367], Services To Aux 12V Option Start (1= off, 2= a/b switch, 3= on).
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the Aux 12V Option specified by the business system or use the default Aux 12V Option defined for the converter type.
- Not 0** Calculate the Aux 12V Option based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link uses the absolute value in the calculation and does not authorize the set-top terminal for the specified service number.

[367] Services To Aux 12V Option Start (1= off, 2= a/b switch, 3= on)

Set this parameter to the starting service number in the range of service numbers used to calculate the Aux 12V Option for a set-top terminal.

This feature is enabled only if parameter [366] is not 0 (zero).

[368] Services To Aux 12V Option Stop (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the Aux 12V Option for a set-top terminal. Set this parameter to a positive value (+) to calculate the Aux 12V Option based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the Aux 12V Option based on the last service number in this range sent in the command.

This feature is enabled only if parameter [366] is not 0 (zero).

[369] Services To Tuning Type Defined On Controller (subtract absolute value from start value)

This parameter enables you to assign the Tuning Type to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Tuning Type field or when assigning the Tuning Type by the business system is inappropriate.

If this feature is enabled, the system derives the Tuning Type using the following calculation:

$$\text{Tuning Type} = \text{<service number>} - \text{<starting service number>} + |\text{<offset>}|$$

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [370], Services To Tuning Type Start (1= HRC, 2= IRC, 3= Standard), and [371], Services To Tuning Type Stop (positive if first service, negative if last).

Set parameter [371] to a positive value (+) to calculate the Tuning Type based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the value based on the last service number.

- <starting service number> is the value defined by parameter [370], Services To Tuning Type Start (1= HRC, 2= IRC, 3= Standard).
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the Tuning Type specified by the business system or use the default Tuning Type defined for the converter type.
- Not 0** Calculate the Tuning Type based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link uses the absolute value in the calculation.

The result of this calculation must be only 1, 2, or 3. Therefore, the absolute value of the offset defined by parameter [369] must be 1 and the absolute value of the ending service number defined by parameter [371] must be equal to the starting service number defined by parameter [370] + 2.

[370] Services To Tuning Type Start (1= HRC, 2= IRC, 3= Standard)

Set this parameter to the starting service number in the range of service numbers used to calculate the Tuning Type for a set-top terminal.

This feature is enabled only if parameter [369] is not 0 (zero).

[371] Services To Tuning Type Stop (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the Tuning Type for a set-top terminal. Set this parameter to a positive value (+) to calculate the Tuning Type based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the Tuning Type based on the last service number in this range sent in the command.

Because the result of this calculation must be a value between 1 and 3, this parameter should be no more than the value of parameter [370] plus 2. For example, if parameter [370] is 10, this parameter should be set to 12.

This feature is enabled only if parameter [369] is not 0 (zero).

[372] Services To Input Frequency Map Defined On Controller (subtract absolute value from start value)

This enables you to assign the Input Frequency Map to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Input Frequency Map field or when assigning the Input Frequency Map by the business system is inappropriate.

If this feature is enabled, the system derives the Input Frequency Map using the following calculation:

$$\text{Input Frequency Map} = \text{<service number>} - \text{<starting service number>} + |\text{<offset>}|$$

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [373], Services To Input Frequency Map Start, and [374], Services To Input Frequency Map Stop (positive if first service, negative if last).

Set parameter [374] to a positive value (+) to calculate the Input Frequency Map based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the Input Frequency Map based on the last service number in this range sent in the command.

- <starting service number> is the value defined by parameter [373], Services To Input Frequency Map Start.
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the Input Frequency Map specified by the business system or use the default Input Frequency Map defined for the converter type.
- Not 0** Calculate the Input Frequency Map based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link assigns the calculated value, but does not authorize the set-top terminal for the service.

[373] Services To Input Frequency Map Start

Set this parameter to the starting service number in the range of service numbers used to calculate the Input Frequency Map for a set-top terminal.

This feature is enabled only if parameter [372] is not 0 (zero).

[374] Services To Input Frequency Map Stop (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the Input Frequency Map for a set-top terminal. Set this parameter to a positive value (+) to calculate the input frequency map based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the Input Frequency Map based on the last service number in this range sent in the command.

This feature is enabled only if parameter [372] is not 0 (zero).

[375] Services To Output Frequency Map Defined On Controller (subtract absolute value from start value)

This parameter enables you to assign the Output Frequency Map to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Output Frequency Map field or when assigning the Output Frequency Map by the business system is inappropriate.

If this feature is enabled, the system derives the Output Frequency Map using the following calculation:

$$\text{Output Frequency Map} = \text{<service number>} - \text{<starting service number>} + |\text{<offset>}|$$

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [376], Services To Output Frequency Map Start, and [377], Services To Output Frequency Map Stop (positive if first service, negative if last).

Set parameter [377] to a positive value (+) to calculate the Output Frequency Map based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the Output Frequency Map based on the last service number in this range sent in the command.

- <starting service number> is the value defined by parameter [376], Services To Output Frequency Map Start.
- |<offset>| is the absolute value of this parameter.

Precede the value of this parameter with a minus sign (–) to use the service number only to perform the calculation and assign the calculated value. If you specify a positive value for this parameter, the Wire Link performs the calculation and authorizes the set-top terminal for the specified service number.

Set this parameter to one of the following values:

- | | |
|--------------|---|
| 0 | Disable the feature. Use the Output Frequency Map specified by the business system or use the default Output Frequency Map defined for the converter type. |
| Not 0 | Calculate the Output Frequency Map based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link assigns the calculated value, but does not authorize the set-top terminal for the service. |

[376] Services To Output Frequency Map Start

Set this parameter to the starting service number in the range of service numbers used to calculate the Output Frequency Map for a set-top terminal.

This feature is enabled only if parameter [375] is not 0 (zero).

[377] Services To Output Frequency Map Stop (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the Output Frequency Map for a set-top terminal. Set this parameter to a positive value (+) to calculate the Output Frequency Map based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the Output Frequency Map based on the last service number in this range sent in the command.

This feature is enabled only if parameter [375] is not 0 (zero).

[378] Services To UHF Output Channel Number Group 2 Defined On Controller (subtract absolute value from start value)

This parameter enables you to assign the UHF Output Channel Number Group 2 to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the UHF Output Channel Number field or when assigning the UHF Output Channel Number by the business system is inappropriate.

If this feature is enabled, the system derives the UHF Output Channel Number using the following calculation:

UHF Output Channel Number = <service number> – <starting service number> + |<offset>|

where:

- <service number> is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [379], Services To UHF Output Channel Number Group 2 Start, and [380], Services To UHF Output Channel Number Group 2 Stop (positive if first service, negative if last).

Set parameter [380] to a positive value (+) to calculate the UHF Output Channel Number based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the value based on the last service number in this range sent in the command.

- <starting service number> is the value defined by parameter [379].
- |<offset>| is the absolute value of this parameter.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the UHF Output Channel Number specified by the business system or use the default UHF Output Channel Number defined for the converter type.
- Not 0** Calculate the UHF Output Channel Number based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link uses the absolute value in the calculation.

[379] Services To UHF Output Channel Number Group 2 Start

Set this parameter to the starting service number in the range of service numbers used to calculate the UHF Output Channel Number for a set-top terminal.

This feature is enabled only if parameter [378] is not 0 (zero).

[380] Services To UHF Output Channel Number Group 2 Stop (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the UHF Output Channel Number for a set-top terminal. Set this parameter to a positive value (+) to calculate the UHF Output Channel Number based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the UHF Output Channel Number based on the last service number in this range sent in the command.

This feature is enabled only if parameter [378] is not 0 (zero).

[381] * OPEN *****

Set this parameter to blanks.

[382] ICF Field To Key Off Of (1 = hub, 2 = chan map, 3 = service)

This feature enables you to assign values to the hub number field, the channel map number field, the UHF Output Channel Number, the Aux 12V Option field, the Input Frequency Map Number field, and the Output Frequency Map Number field based on the International Conversion Field (ICF). This parameter defines the key field sent by the business system that is used to calculate the ICF.

When calculated, the ICF corresponds to one of ten groups of field values that is assigned to the set-top terminal. The group of values associated with each calculated ICF is defined in parameters [385] through [404].

If this feature is enabled, the system derives the ICF value using the following calculation:

$$\text{ICF} = \text{<ICF key>} - \text{<Start Key>} + 1$$

where:

- <ICF key> is the value sent by the business system used in this calculation. For example, if this parameter is 1, the calculation uses the hub number sent by the business system.
- <Start Key> is the value defined by parameter [383], ICF “From” Start Key (offset of 1).

Set this parameter to one of the following values:

- 0 Disable the calculation of the ICF key.
- 1 Use the Hub Number sent by the business system to calculate the ICF key.
- 2 Use the Channel Map sent by the business system to calculate the ICF key.
- 3 Use the Service Number sent by the business system to calculate the ICF key.

[383] ICF “From” Start Key (offset of 1)

Set this parameter to the starting value in the range of values used to calculate the ICF. The specific starting value will depend upon the ICF key defined by parameter [382]. For example, if parameter [382] is 1, this parameter will be set to a hub number.

This feature is enabled only if parameter [382] is greater than 0 (zero).

[384] ICF “From” Stop Key (positive if first service, negative if last)

Set this parameter to the ending value in the range of values used to calculate the ICF. The specific type of value depends on the ICF key defined by parameter [382]. For example, if parameter [382] is 1, this value is a hub number.

Set this parameter to a positive value (+) to calculate the ICF based on the first service number in this range sent in the command, or precede the value with a minus sign (–) to calculate the ICF based on the last service number in this range sent in the command.

This feature is enabled only if parameter [382] is greater than 0 (zero).

[385] ICF “To” Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 1. Enter an underscore (_) in place of a numeric value to assign no value to any specific field.

The ICF calculation is in the description for parameter [382].

[386] ICF “To” Value 01, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 1. Enter an underscore (_) in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[387] ICF “To” Value 02, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 2. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[388] ICF “To” Value 02, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 2. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[389] ICF “To” Value 03, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 3. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[390] ICF “To” Value 03, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 3. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[391] ICF “To” Value 04, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 4. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[392] ICF “To” Value 04, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 4. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[393] ICF “To” Value 05, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 5. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[394] ICF “To” Value 05, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 5. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[395] ICF “To” Value 06, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 6. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[396] ICF “To” Value 06, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 6. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[397] ICF “To” Value 07, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 7. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[398] ICF “To” Value 07, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 7. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[399] ICF “To” Value 08, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 8. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[400] ICF “To” Value 08, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 8. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[401] ICF “To” Value 09, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 9. Enter an underscore () in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[402] ICF “To” Value 09, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 9. Enter an underscore (_) in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[403] ICF “To” Value 10, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option)

Set this parameter to a seven-bit string composed of a two-digit hub number, a two-digit channel map number, a two-digit UHF output channel number, and a one-digit Aux 12V Option assigned to a set-top terminal when the calculated ICF number is 10. Enter an underscore (_) in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[404] ICF “To” Value 10, 2/2 (iioo - input frequency map, output frequency map)

Set this parameter to a four-bit string composed of a two-digit Input Frequency Map Number and a two-digit Output Frequency Map Number assigned to a set-top terminal when the calculated ICF number is 10. Enter an underscore (_) in place of a numeric value to assign no value to any one field.

The ICF calculation is in the description for parameter [382].

[405] *** OPEN ***

Set this parameter to blanks.

[406] CSTCF “From” Start Service Number (offset of 1)

Parameters [406] through [447] enable you to assign a 16-bit value between 0 and 65535 to the Converter Subtype 1, 2, 3, and 4 fields based on a service number sent by the business system.

Set this parameter to the starting value in the range of values used to calculate the CSTCF value. Parameter [407], CSTCF “From” Stop Service Number (positive if first service, negative if last), specifies the ending service number in the range.

When the business system sends an authorization for a service number in this range, the Wire Link performs the following calculation:

$$\text{CSTCF} = \text{<service number>} - \text{<starting service number>} + 1$$

where:

- <service number> is the service number sent by the business system.
- <starting service number> is the value of this parameter. Precede this value with a minus sign (–) to perform the calculation but not authorize the set-top terminal for the service.

The values of the converter subtype fields are assigned by parameters [408] through [447] based on the calculated CSTCF value.

[407] CSTCF “From” Stop Service Number (positive if first service, negative if last)

Set this parameter to the ending value in the range of values used to calculate the CSTCF value. Parameter [406] specifies the starting service number in this range.

Because the calculated CSTCF must be a value between 1 and 10, this parameter should be no more than the value of parameter [406] plus 9. For example, if parameter [406] is 10, this parameter should be set to a value no greater than 19.

Set this parameter to a positive value (+) to base the CSTCF value on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the CSTCF value on the last service number in this range sent in the command.

[408] CSTCF “To” Value 01, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 1.

The CSTCF calculation is shown in the description of parameter [406].

[409] CSTCF “To” Value 01, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 1.

The CSTCF calculation is shown in the description of parameter [406].

[410] CSTCF “To” Value 01, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 1.

The CSTCF calculation is shown in the description of parameter [406].

[411] CSTCF “To” Value 01, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 1.

The CSTCF calculation is shown in the description of parameter [406].

[412] CSTCF “To” Value 02, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 2.

The CSTCF calculation is shown in the description of parameter [406].

[413] CSTCF “To” Value 02, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 2.

The CSTCF calculation is shown in the description of parameter [406].

[414] CSTCF “To” Value 02, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 2.

The CSTCF calculation is shown in the description of parameter [406].

[415] CSTCF “To” Value 02, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 2.

The CSTCF calculation is shown in the description of parameter [406].

[416] CSTCF “To” Value 03, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 3.

The CSTCF calculation is shown in the description of parameter [406].

[417] CSTCF “To” Value 03, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 3.

The CSTCF calculation is shown in the description of parameter [406].

[418] CSTCF “To” Value 03, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 3.

The CSTCF calculation is shown in the description of parameter [406].

[419] CSTCF “To” Value 03, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 3.

The CSTCF calculation is shown in the description of parameter [406].

[420] CSTCF “To” Value 04, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 4.

The CSTCF calculation is shown in the description of parameter [406].

[421] CSTCF “To” Value 04, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 4.

The CSTCF calculation is shown in the description of parameter [406].

[422] CSTCF “To” Value 04, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 4.

The CSTCF calculation is shown in the description of parameter [406].

[423] CSTCF “To” Value 04, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 4.

The CSTCF calculation is shown in the description of parameter [406].

[424] CSTCF “To” Value 05, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 5.

The CSTCF calculation is shown in the description of parameter [406].

[425] CSTCF “To” Value 05, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 5.

The CSTCF calculation is shown in the description of parameter [406].

[426] CSTCF “To” Value 05, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 5.

The CSTCF calculation is shown in the description of parameter [406].

[427] CSTCF “To” Value 05, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 5.

The CSTCF calculation is shown in the description of parameter [406].

[428] CSTCF “To” Value 06, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 6.

The CSTCF calculation is shown in the description of parameter [406].

[429] CSTCF “To” Value 06, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 6.

The CSTCF calculation is shown in the description of parameter [406].

[430] CSTCF “To” Value 06, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 6.

The CSTCF calculation is shown in the description of parameter [406].

[431] CSTCF “To” Value 06, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 6.

The CSTCF calculation is shown in the description of parameter [406].

[432] CSTCF “To” Value 07, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 7.

The CSTCF calculation is shown in the description of parameter [406].

[433] CSTCF “To” Value 07, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 7.

The CSTCF calculation is shown in the description of parameter [406].

[434] CSTCF “To” Value 07, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 7.

The CSTCF calculation is shown in the description of parameter [406].

[435] CSTCF “To” Value 07, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 7.

The CSTCF calculation is shown in the description of parameter [406].

[436] CSTCF “To” Value 08, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 8.

The CSTCF calculation is shown in the description of parameter [406].

[437] CSTCF “To” Value 08, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 8.

The CSTCF calculation is shown in the description of parameter [406].

[438] CSTCF “To” Value 08, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 8.

The CSTCF calculation is shown in the description of parameter [406].

[439] CSTCF “To” Value 08, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 8.

The CSTCF calculation is shown in the description of parameter [406].

[440] CSTCF “To” Value 09, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 9.

The CSTCF calculation is shown in the description of parameter [406].

[441] CSTCF “To” Value 09, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 9.

The CSTCF calculation is shown in the description of parameter [406].

[442] CSTCF “To” Value 09, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 9.

The CSTCF calculation is shown in the description of parameter [406].

[443] CSTCF “To” Value 09, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 9.

The CSTCF calculation is shown in the description of parameter [406].

[444] CSTCF “To” Value 10, 1/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 1 field if the calculated CSTCF value is 10.

The CSTCF calculation is shown in the description of parameter [406].

[445] CSTCF “To” Value 10, 2/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 2 field if the calculated CSTCF value is 10.

The CSTCF calculation is shown in the description of parameter [406].

[446] CSTCF “To” Value 10, 3/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 3 field if the calculated CSTCF value is 10.

The CSTCF calculation is shown in the description of parameter [406].

[447] CSTCF “To” Value 10, 4/4 (0 to 65535)

Set this parameter to a 16-bit value between 0 (zero) and 65535 assigned to the Converter Subtype 4 field if the calculated CSTCF value is 10.

The CSTCF calculation is shown in the description of parameter [406].

[448] * OPEN *****

Set this parameter to blanks.

[449] * OPEN *****

Set this parameter to blanks.

[450] * OPEN *****

Set this parameter to blanks.

[451] * OPEN *****

Set this parameter to blanks.

[452] * OPEN *****

Set this parameter to blanks.

[453] * OPEN *****

Set this parameter to blanks.

[454] * OPEN *****

Set this parameter to blanks.

[455] * OPEN *****

Set this parameter to blanks.

[456] * OPEN *****

Set this parameter to blanks.

[457] * OPEN *****

Set this parameter to blanks.

[458] Host Sending Field Status Word 1 (T, F)

Use this parameter to enable the business system to control the value of the Field Status Word 1 field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[459] Host Sending Field Status Word 2 (T, F)

Use this parameter to enable the business system to control the value of the Field Status Word 2 field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[460] Host Sending Field Status Word 3 (T, F)

Use this parameter to enable the business system to control the value of the Field Status Word 3 field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[461] Host Sending Field Status Word 4 (T, F)

Use this parameter to enable the business system to control the value of the Field Status Word 4 field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[462] Host Sending Status Word 1 (T, F)

Use this parameter to enable the business system to control the value of the Status Word (1) field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[463] Host Sending Status Word 2 (T, F)

Use this parameter to enable the business system to control the value of the Status Word 2 field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[464] Host Sending Status Word 3 (T, F)

Use this parameter to enable the business system to control the value of the Status Word 3 field.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[465] Host Sending Converter Subtype 1/4 (T, F)

Use this parameter to enable the business system to control the value of the Converter Subtype 1 field.

If you set this parameter to F, the ACC-4000 ignores this field when sent by the business system.

Set this parameter to one of the following values:

- T** Process the field sent by the business system.
- F** Ignore this field value when sent by the business system; use the existing value or use the default values defined for the converter type.

Set this parameter to T to enable the following Wire Link configuration file parameters:

- [486] Host Sending 68K Processor Option Installed (T, F)
- [487] Host Sending Downloadable Firmware Option Installed (T, F)
- [488] Host Sending MC Option Installed (T, F)
- [489] Host Sending Wireless Option Installed (T, F)
- [490] Host Sending Lynx Lite Option Installed (T, F)
- [491] Host Sending Bit-Mapped Graphics Option Installed (T, F)
- [492] Host Sending Digi-Dock Option Installed (T, F)
- [493] Host Sending IR Blaster Option Installed (T, F)
- [494] Host Sending Network Module Option Installed (T, F)
- [495] Host Sending Simulcast Option Installed (T, F)

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[466] Host Sending Converter Subtype 2/4 (T, F)

Set this parameter to F. This field is currently not used.

[467] Host Sending Converter Subtype 3/4 (T, F)

Set this parameter to F. This field is currently not used.

[468] Host Sending Converter Subtype 4/4 (T, F)

Set this parameter to F. This field is currently not used.

[469] Host Sending Interactive Program Guide (IPG) Region Code (CFT-2200) (T, F)

Use this parameter to enable the business system to control the value of the IPG region code for a CFT2200 set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[470] Host Sending SEGA Frequency Map (T, F)

Use this parameter to enable the business system to control the value of the Sega frequency map for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[471] * OPEN *****

Set this parameter to blanks.

[472] Host Sending Audio Compression Mode (T, F)

Use this parameter to enable the business system to control the value of the Audio-Compression Mode option for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[473] Host Sending Power Fail Resume (T, F)

Use this parameter to enable the business system to control the value of the Power Fail Resume field of a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[474] Host Sending Copy Protection (T, F)

Use this parameter to enable the business system to control the value of the Copy Protection option for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[475] Language Specifier, Active (T, F)

Use this parameter to enable the business system to control the value of the Language Specifier for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[476] Host Sending Language Specifier, Primary (T, F)

Use this parameter to enable the business system to control the value of the Language Specifier, Primary field for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[477] Host Sending Language Specifier, Alternate (T, F)

Use this parameter to enable the business system to control the value of the Language Specifier, Alternate field for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[478] Host Sending User Interface Subsystem (T, F)

Use this parameter to enable the business system to control the value of the User Interface Subsystem feature for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[479] Host Sending Downloadable Firmware (T, F)

Use this parameter to enable the business system to control the value of the Downloadable Firmware field for a set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[480] *** OPEN ***

Set this parameter to blanks.

[481] *** OPEN ***

Set this parameter to blanks.

[482] Host Sending MC Digital Audio Output Muted (T, F)

Use this parameter to enable the business system to control the value of the MC Digital Audio Output Muted option for set-top terminals that have Music Choice.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[483] Host Sending MC Allow One Copy (T, F)

Use this parameter to enable the business system to control the value of the MC Allow One Copy option for a set-top terminal that has Music Choice.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[484] * OPEN *****

Set this parameter to blanks.

[485] Host Sending UHF Output Channel Number (T, F)

Use this parameter to enable the business system to control the value of the UHF Output Channel Number field for an international set-top terminal.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[486] Host Sending 68K Processor Option Installed (T, F)

Use this parameter to enable the business system to control the value of the 68K Processor Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[487] Host Sending Downloadable Firmware Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Downloadable Firmware Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[488] Host Sending MC Option Installed (T, F)

Use this parameter to enable the business system to control the value of the MC Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[489] Host Sending Wireless Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Wireless Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[490] Host Sending Lynx Lite Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Lynx Lite Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[491] Host Sending Bit-Mapped Graphics Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Bit-Mapped Graphics Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[492] Host Sending Digi-Dock Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Digi-Dock Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[493] Host Sending IR Blaster Option Installed (T, F)

Use this parameter to enable the business system to control the value of Infra-Red (IR) Blaster Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[494] Host Sending Network Module Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Network Module Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must also be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[495] Host Sending Simulcast Option Installed (T, F)

Use this parameter to enable the business system to control the value of the Simulcast Option Installed field for a set-top terminal.

For this option to be processed, parameter [465], Host Sending Converter Subtype 1/4 (T, F), must be set to T.

Set this parameter to one of the following values:

- T** Read the value when sent by the business system.
- F** Ignore this field value when sent by the business system; use only other Wire Link parameters that assign a value to this field, the existing value, or the default value defined for the converter type.

To view this data on the Wire Link Monitor screen, set the Display brief format option and the Display brief/brief format option on the Business System Gateway Log Options screen to N.

[496] * OPEN *****

Set this parameter to blanks.

[497] * OPEN *****

Set this parameter to blanks.

[498] * OPEN *****

Set this parameter to blanks.

[499] * OPEN *****

Set this parameter to blanks.

[500] * OPEN *****

Set this parameter to blanks.

[501] * OPEN *****

Set this parameter to blanks.

[502] * OPEN *****

Set this parameter to blanks.

[503] * OPEN *****

Set this parameter to blanks.

[504] Always Make Field Status Word 1 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Status Word (1) field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[505] Always Make Field Status Word 2 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Field Status Word 2 field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[506] Always Make Field Status Word 3 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Field Status Word 3 field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[507] Always Make Field Status Word 4 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Field Status Word 4 field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[508] Always Make Status Word 1 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Status Word 1 field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[509] Always Make Status Word 2 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Status Word 2 field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[510] Always Make Status Word 3 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of all fields in the ACC-4000 database sent in the Status Word 3 field of Record Types 460 and 462.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[511] Always Make Converter Sub-Type 1 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of the Converter Subtype 1 field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[512] Always Make Converter Sub-Type 2 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of the Converter Subtype 2 field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[513] Always Make Converter Sub-Type 3 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of the Converter Subtype 3 field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[514] Always Make Converter Sub-Type 4 Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of the Converter Subtype 4 field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[515] * OPEN *****

Set this parameter to blanks.

[516] * OPEN *****

Set this parameter to blanks.

[517] * OPEN *****

Set this parameter to blanks.

[518] * OPEN *****

Set this parameter to blanks.

[519] * OPEN *****

Set this parameter to blanks.

[520] * OPEN *****

Set this parameter to blanks.

[521] Always Make Interactive Program Guide (IPG) Region Code (CFT-2200) Equal To (0 to 65535)

Set this parameter to a value from 0 (zero) through 65535 to define the value of the IPG Region Code field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[522] Always Make MC Frequency Map Equal To (0 to 99)

Set this parameter to a value from 0 (zero) through 99 to define the value of the MC Frequency Map field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[523] Always Make SEGA Frequency Map Equal To (0 to 99)

Set this parameter to a value from 0 (zero) through 99 to define the value of the Sega Frequency Map field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[524] Always Make Audio Compression Mode Equal To (0 to 3)

Set this parameter to a value from 0 (zero) through 3 to define the value of the Audio Compression Mode field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[525] Always Make Power Fail Resume Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Power Fail Resume Mode field to T in the ACC-4000 database.
- F** Set the Power Fail Resume Mode field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[526] Always Make Copy Protection Equal To (0 to 3)

Set this parameter to define the value of the Copy Protection Mode field in the ACC-4000 database.

Set this parameter to one of the following values:

- 0 MC Digital Audio Output Muted
- 1 MC Allow One Copy
- 2 Open
- 3 Open
- # Ignore this parameter

Record Types 460 and 462 contain the Copy Protection Mode field.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[527] Always Make Language Specifier, Active Equal To (T, F)

Set this parameter to one of the following values:

- T Set the Language Specifier, Active field to T in the ACC-4000 database.
- F Set the Language Specifier, Active field to F.
- # Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[528] Always Make Language Specifier, Primary Equal To (T, F)

Set this parameter to one of the following values:

- T Set the Language Specifier, Primary field to T in the ACC-4000 database.
- F Set the Language Specifier, Primary field to F.
- # Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[529] Always Make Language Specifier, Alternate Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Language Specifier, Alternate field to T in the ACC-4000 database.
- F** Set the Language Specifier, Alternate field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[530] Always Make User Interface Subsystem Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the User Interface Subsystem field to T in the ACC-4000 database.
- F** Set the User Interface Subsystem field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[531] Always Make Downloadable Firmware Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Downloadable Firmware field to T in the ACC-4000 database.
- F** Set the Downloadable Firmware field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[532] * OPEN *****

Set this parameter to blanks.

[533] * OPEN *****

Set this parameter to blanks.

[534] Always Make UHF Output Channel Number Equal To (0 to 99)

Set this parameter to a value from 0 (zero) through 99 to define the value of the UHF Output Channel Number field in the ACC-4000 database.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value. Set this to # to ignore this parameter.

[535] Always Make Near Video On Demand (NVOD) Equal To (T, F)

Set this parameter to one of the following values:

T Set the NVOD field to T in the ACC-4000 database.

F Set the NVOD field to F.

Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[536] Always Make Electronic Program Guide (EPG) (CFT-2900, StarSight) Equal To (T, F)

Set this parameter to one of the following values:

T Set the Electronic Program Guide option to T in the ACC-4000 database.

F Set the Electronic Program Guide option to F.

Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[537] Always Make 68K Processor Option Installed Equal To (T, F)

Set this parameter to one of the following values:

T Set the 68K Processor Option Installed option to T in the ACC-4000 database.

F Set the 68K Processor Option Installed option to F.

Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[538] Always Make Downloadable Firmware Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Downloadable Firmware Option Installed option to T in the ACC-4000 database.
- F** Set the Downloadable Firmware Option Installed option to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[539] Always Make MC Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the MC Option Installed field to T in the ACC-4000 database.
- F** Set the MC Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[540] Always Make Wireless Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Wireless Option Installed field to T in the ACC-4000 database.
- F** Set the Wireless Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[541] Always Make Lynx Lite Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Lynx Lite Option Installed field to T in the ACC-4000 database.
- F** Set the Lynx Lite Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[542] Always Make Bit-Mapped Graphics Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Bit-Mapped Graphics Option Installed field to T in the ACC-4000 database.
- F** Set the Bit-Mapped Graphics Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[543] Always Make Digi-Dock Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Digi-Dock Option Installed field to T in the ACC-4000 database.
- F** Set the Digi-Dock Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[544] Always Make IR Blaster Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the IR Blaster Option Installed field to T in the ACC-4000 database.
- F** Set the IR Blaster Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[545] Always Make Network Module Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Network Module Option Installed field to T in the ACC-4000 database.
- F** Set the Network Module Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[546] Always Make Simulcast Option Installed Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Simulcast Option Installed field to T in the ACC-4000 database.
- F** Set the Simulcast Option Installed field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[547] Always Make MC Digital Audio Output Muted Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the MC Digital Audio Output Muted field to T in the ACC-4000 database.
- F** Set the MC Digital Audio Output Muted field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[548] Always Make MC Allow One Copy Equal To (T, F)

Set this parameter to one of the following values:

- T** Set the Make MC Allow One Copy field to T in the ACC-4000 database.
- F** Set the Make MC Allow One Copy field to F.
- #** Ignore this parameter.

Using this parameter overrides the field value sent by the business system, the current database value, and any other parameter that calculates or assigns this value.

[549] * OPEN *****

Set this parameter to blanks.

[550] * OPEN *****

Set this parameter to blanks.

[551] * OPEN *****

Set this parameter to blanks.

[552] * OPEN *****

Set this parameter to blanks.

[553] * OPEN *****

Set this parameter to blanks.

[554] * OPEN *****

Set this parameter to blanks.

[555] * OPEN *****

Set this parameter to blanks.

[556] * OPEN *****

Set this parameter to blanks.

[557] Refresh Mode - Print Differences In Interactive Program Guide (IPG) Region Code (CFT-2200)

Use this parameter to display differences between the IPG Region Code defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the Interactive Program Guide (IPG) Region Code stored on the ACC-4000 and the corresponding field value sent in Record Types 262 and 462.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[558] Refresh Mode - Print Differences In MC, Input And Output Frequency Maps

Use this parameter to display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Music Choice (MC) installed option, the input frequency map, and the output frequency map. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the values stored on the ACC-4000 and the corresponding field values sent in a change converter information command for the Music Choice (MC) installed option, the input frequency map, and the output frequency map.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[559] Refresh Mode - Print Differences In Audio Compression, Copy Protection, Power Fail Resume Modes

Use this parameter to display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Audio Compression feature, the Copy Protection feature, and the Power Fail Resume feature. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the values stored on the ACC-4000 and the corresponding field values sent in a change converter information command for the Audio Compression feature, the Copy Protection feature, and the Power Fail Resume feature.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[560] Refresh Mode - Print Differences In Language Specifiers Active, Primary And Alternate

Use this parameter to display differences between the active, primary, and alternate languages defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the active, primary, and alternate languages stored on the ACC-4000 for a set-top terminal and the corresponding field values sent in a change converter information command.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[561] Refresh Mode - Print Differences In User Interface Subsystem and Dwnld. Firmware

Use this parameter to display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the User Interface Subsystem Installed feature and the Downloadable Firmware Option Installed feature. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the values stored on the ACC-4000 and the corresponding field values sent in a change converter information command for the User Interface Subsystem Installed feature and the Downloadable Firmware Option Installed feature.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing in Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[562] * OPEN *****

Set this parameter to blanks.

[563] Refresh Mode - Print Differences In Converter Group/Sub-Groups

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Converter Group, the Converter Subgroup 1, the Converter Subgroup 2, and the Converter Subgroup 3 fields. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values stored on the ACC-4000 and the corresponding field values sent in a change converter information command for the Converter Group, the Converter Subgroup 1, the Converter Subgroup 2, and the Converter Subgroup 3 fields.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing in Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[564] Refresh Mode - Print Differences In Telephone Number

Use this parameter to display differences between the telephone number defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in a change converter information command. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the telephone number stored on the ACC-4000 and the corresponding field value sent in a change converter information command.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[565] Refresh Mode - Print Differences In Timeout Limit And Emergency Alert

Use this parameter to display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the timeout limit and the emergency alert mask. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the timeout limit and the emergency alert mask.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[566] Refresh Mode - Print Differences In UHF Output Channel Number And Aux 12V Option

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the UHF Output Channel Number and the Aux 12V Option fields used for international set-top terminals. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the UHF Output Channel Number and the Aux 12V Option fields used for international set-top terminals.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing in Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[567] Refresh Mode - Print Differences In Near Video On Demand (NVOD) And Electronic Program Guide (EPG)

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Near Video On Demand (NVOD) and the Electronic Program Guide options. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Near Video On Demand (NVOD) and the Electronic Program Guide options.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing in Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[568] Refresh Mode - Print Differences In 68K Processor And Downloadable Firmware Options Installed

Use this parameter to display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in a change converter information command for the 68K Processor Option Installed and the Downloadable Firmware Option Installed fields. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the values defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in a change converter information command for the 68K Processor Option Installed and the Downloadable Firmware Option Installed fields.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[569] Refresh Mode - Print Differences In MC, Wireless And Lynx Lite Options Installed

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding values sent in a change converter information command for the Music Choice option, the Wireless option, and the Lynx Lite option. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding values sent in a change converter information command for the Music Choice option, the Wireless option, and the Lynx Lite option.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[570] Refresh Mode - Print Differences In Bit-Mapped Graphics And Digi-Dock Options Installed

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Bit-Mapped Graphics option and the Digi-Dock option. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the Bit-Mapped Graphics option and the Digi-Dock option.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing in Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[571] Refresh Mode - Print Differences In IR Blaster And Network Module Options Installed

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the IR Blaster option and the Network Module option. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values defined for a set-top terminal on the ACC-4000 and the corresponding field values sent in a change converter information command for the IR Blaster option and the Network Module option.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing in Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[572] Refresh Mode - Print Differences In Simulcast Option Installed

Use this parameter to display differences between the Simulcast Option Installed field defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in a change converter information command. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the Simulcast Option Installed field defined for a set-top terminal on the ACC-4000 and the corresponding field value sent in a change converter information command.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[573] Refresh Mode - Print Differences In MC Digital Audio Muted, MC Allow One Copy

Use this parameter to display differences between values defined for a set-top terminal on the ACC-4000 and corresponding field values sent in a change converter information command for the Music Choice Digital Audio Muted option and the Music Choice Allow One Copy option. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between values defined for a set-top terminal on the ACC-4000 and corresponding field values sent in a change converter information command for the Music Choice Digital Audio Muted option and the Music Choice Allow One Copy option.
- F** Do not display differences for these fields.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[574] Refresh Mode - Print Differences In SEGA Frequency Map

Use this parameter to display differences between the Sega frequency map defined for a set-top terminal on the ACC-4000 and corresponding field value sent in a change converter information command. The change converter information commands are Record Types 262 and 462.

For this parameter to be processed, parameter [025], Debug Option - Option 6 - Refresh Mode - Display Differences, must also be set to T.

Set this parameter to one of the following values:

- T** Display differences between the Sega frequency map defined for a set-top terminal on the ACC-4000 and corresponding field value sent in a change converter information command.
- F** Do not display differences for this field.

Differences are displayed on the Wire Link Monitor screen if parameter [141], Refresh Mode - Write Differences To System Console, is T.

Differences are written to the Wire Link transaction file if parameter [142], Refresh Mode - Write Differences To WLTRANS.DAT File, is T.

See *Refresh Mode Processing* in *Section 2, Implementation Considerations*, for more detailed information and a list of related Wire Link parameters.

[575] * OPEN *****

Set this parameter to blanks.

[576] * OPEN *****

Set this parameter to blanks.

[577] * OPEN *****

Set this parameter to blanks.

[578] * OPEN *****

Set this parameter to blanks.

[579] GSGCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)

This feature enables you to assign a group and three subgroups based on the Group/Subgroup Conversion Field (GSGCF). This parameter determines the key field sent by the business system used to calculate the GSGCF.

You can use this feature if the business system does not support the group or the subgroup fields or when assigning groups and subgroups by the business system is inappropriate.

When calculated, the GSGCF corresponds to one of ten sets of group/subgroup field values that is assigned to the set-top terminal. The set of values associated with each calculated ICF is defined in parameters [582] through [601].

If this feature is enabled, the system derives the GSGCF using the following calculation:

$$\text{GSGCF} = \text{<key field value>} - \text{<start key>} + 1$$

where:

- <key field value> is the hub number, channel map number, or service number specified in the command sent by the business system. The field value must be within the range of start and stop values defined by parameters [580], GSGCF “From” Start Key (Offset Of 1), and [581], GSGCF “From” Stop Key (positive if first service, negative if last).
- <start key> is the starting value in the range of values used to calculate the group and subgroup and is defined by parameter [580], GSGCF “From” Start Key (Offset Of 1).

Set this parameter to one of the following values:

- 0 Disable the calculation of the GSGCF key.
- 1 Use the Hub Number sent by the business system to calculate the GSGCF key.
- 2 Use the Channel Map sent by the business system to calculate the GSGCF key.
- 3 Use the Service Number sent by the business system to calculate the GSGCF key.

[580] GSGCF “From” Start Key (Offset Of 1)

Set this parameter to the starting value in the range of values used to assign the group and subgroup fields. This value is also used in the calculation as shown in the description for parameter [579].

If the calculation results in a value from 1 through 10, the group and subgroup assignments are determined according to parameters [582] through [601].

[581] GSGCF “From” Stop Key (positive if first service, negative if last)

Set this parameter to the ending value in the range of values used to calculate the group and subgroups for a set-top terminal. Because the calculated GSGCF must be a value between 1 and 10, this parameter should be no more than the value of parameter [580] plus 9. For example, if parameter [580] is 10, this parameter should be set to a value no greater than 19.

If parameter [579], GSGCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service), is set to calculate the value based on the service number, set this parameter to a positive value (+) to base the group or subgroup on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the group or subgroup on the last service number in this range sent.

[582] GSGCF “To” Value 01, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 1. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[583] GSGCF “To” Value 01, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 1. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[584] GSGCF “To” Value 02, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 2. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[585] GSGCF “To” Value 02, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 2. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[586] GSGCF “To” Value 03, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 3. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[587] GSGCF “To” Value 03, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 3. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[588] GSGCF “To” Value 04, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 4. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[589] GSGCF “To” Value 04, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 4. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[590] GSGCF “To” Value 05, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 5. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[591] GSGCF “To” Value 05, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 5. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[592] GSGCF “To” Value 06, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 6. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

[593] GSGCF “To” Value 06, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 6. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[594] GSGCF “To” Value 07, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 7. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[595] GSGCF “To” Value 07, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 7. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[596] GSGCF “To” Value 08, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 8. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[597] GSGCF “To” Value 08, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 8. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[598] GSGCF “To” Value 09, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 9. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[599] GSGCF “To” Value 09, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 9. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[600] GSGCF “To” Value 10, 1/2 (GGG111 - Group, Sub-Group 1)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Group field and the second value is assigned to the Converter Subgroup 1 field for a set-top terminal if the calculated GSGCF value is 10. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[601] GSGCF “To” Value 10, 2/2 (222333 - Sub-Group 2, Sub-Group 3)

Set this parameter to two values between 1 and 180. The first value is assigned to the Converter Subgroup 2 field and the second value is assigned to the Converter Subgroup 3 field for a set-top terminal if the calculated GSGCF value is 10. The GSGCF calculation is described as part of the description for parameter [579].

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

[602] *** OPEN ***

Set this parameter to blanks.

[603] *** OPEN ***

Set this parameter to blanks.

[604] *** OPEN ***

Set this parameter to blanks.

[605] * OPEN *****

Set this parameter to blanks.

[606] * OPEN *****

Set this parameter to blanks.

[607] IPGRCCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)

This feature enables you to assign the Interactive Program Guide (IPG) region code based on the Interactive Program Guide Region Code Conversion Field (IPGRCCF). This parameter defines the key field sent by the business system that is used to calculate the IPGRCCF.

You can use this feature if the business system does not support the IPG Region Code field or when assigning the IPG region code by the business system is inappropriate.

When calculated, the IPGRCCF corresponds to one of ten field values that is assigned to the set-top terminal. The value associated with each calculated IPGRCCF is defined in parameters [610] through [619].

If this feature is enabled, the system derives the IPGRCCF using the following calculation:

$$\text{IPGRCCF} = \text{<field value>} - \text{<start key>} + 1$$

where:

- <field value> is the hub number, channel map number, or service number specified in the command sent by the business system. The field value must be within the range of start and stop values defined by parameters [608], IPGRCCF “From” Start Key (Offset Of 1), and [609], IPGRCCF “From” Stop Key (positive if first service, negative if last).
- <start key> is the starting value in the range of values used to calculate the IPG Region Code and is defined by parameter [608], IPGRCCF “From” Start Key (Offset Of 1).

Set this parameter to one of the following values:

- 0** Disable the calculation of the IPGRCCF key.
- 1** Use the Hub Number sent by the business system to calculate the IPGRCCF key.
- 2** Use the Channel Map sent by the business system to calculate the IPGRCCF key.
- 3** Use the Service Number sent by the business system to calculate the IPGRCCF key.

[608] IPGRCCF “From” Start Key (Offset Of 1)

Set this parameter to the starting value in the range of values used to calculate the IPG Region Code. The specific starting value will depend upon the IPGRCCF key defined by parameter [607]. For example, if parameter [607] is 1, this parameter will be set to a hub number.

If the calculated IPGRCCF value is a value from 1 through 10, the IPG Region Code assignment is determined according to the values set for parameters [610] through [619].

[609] IPGRCCF “From” Stop Key (positive if first service, negative if last)

Set this parameter to the ending value in the range of values used to calculate the IPG Region Codes for a set-top terminal. Because the calculated IPGRCCF must be a value from 1 through 10, this parameter should be no more than the value of parameter [608], IPGRCCF “From” Start Key (Offset Of 1), plus 9. For example, if parameter [608] is 10, this parameter should be set to a value no greater than 19.

If parameter [607], IPGRCCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service), is 3, the IPGRCCF is based on the service number. Set this parameter to a positive value (+) to base the IPG Region Code on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the IPG Region Code on the last service number in this range sent in the command.

[610] IPGRCCF “To” Value 01 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 1. The IPGRCCF calculation is described as part of the description for parameter [607].

[611] IPGRCCF “To” Value 02 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 2. The IPGRCCF calculation is described as part of the description for parameter [607].

[612] IPGRCCF “To” Value 03 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 3. The IPGRCCF calculation is described as part of the description for parameter [607].

[613] IPGRCCF “To” Value 04 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 4. The IPGRCCF calculation is described as part of the description for parameter [607].

[614] IPGRCCF “To” Value 05 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 5. The IPGRCCF calculation is described as part of the description for parameter [607].

[615] IPGRCCF “To” Value 06 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 6. The IPGRCCF calculation is described as part of the description for parameter [607].

[616] IPGRCCF “To” Value 07 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 7. The IPGRCCF calculation is described as part of the description for parameter [607].

[617] IPGRCCF “To” Value 08 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 8. The IPGRCCF calculation is described as part of the description for parameter [607].

[618] IPGRCCF “To” Value 09 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 9. The IPGRCCF calculation is described as part of the description for parameter [607].

[619] IPGRCCF “To” Value 10 (0 to 65535)

Set this parameter to a value from 0 through 65535 that is assigned as the IPG Region Code for a set-top terminal if the calculated IPGRCCF value is 10. The IPGRCCF calculation is described as part of the description for parameter [607].

[620] * OPEN *****

Set this parameter to blanks.

[621] * OPEN *****

Set this parameter to blanks.

[622] * OPEN *****

Set this parameter to blanks.

[623] * OPEN *****

Set this parameter to blanks.

[624] * OPEN *****

Set this parameter to blanks.

[625] CTCMCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service)

This feature enables you to assign a channel map to a CFT-2900, a CFT2200, or another set-top terminal based on the Converter Types to Channel Map Conversion Field (CTCMCF). This parameter defines the key field sent by the business system that is used to calculate the CTCMCF.

You can use this feature if the business system does not support the Channel Map field or when assigning channel maps by the business system is inappropriate.

When calculated, the CTCMCF corresponds to one of ten field values that is assigned to the set-top terminal. The field value associated with each calculated CTCMCF is defined in parameters [628] through [637].

If this feature is enabled, the system derives the channel map number using the following calculation:

$$\text{CTCMCF} = \text{<key field value>} - \text{<start key>} + 1$$

where:

- <key field value> is the hub number, channel map number, or service number specified in the command sent by the business system. The field value must be within the range of start and stop values defined by parameters [626], CTCMCF “From” Start Key (Offset Of 1), and [627], CTCMCF “From” Stop Key (positive if first service, negative if last). If this field is 3, the CTCMCF is based on service numbers. Set parameter [627] to a positive value (+) to assign the channel map on the first service number in this range sent in the command, or precede the value with a minus sign (–) to assign the channel map number on the last service number sent by the business system.
- <start key> is the value defined by parameter [626], CTCMCF “From” Start Key (Offset Of 1).

Set this parameter to one of the following values:

- 0 Disable the calculation of the CTCMCF key.
- 1 Use the Hub Number sent by the business system to calculate the CTCMCF key.
- 2 Use the Channel Map sent by the business system to calculate the CTCMCF key.
- 3 Use the Service Number sent by the business system to calculate the CTCMCF key.

[626] CTCMCF “From” Start Key (Offset Of 1)

Set this parameter to the starting value in the range of values used to calculate the channel map. This value is also used in the calculation. The specific starting value will depend upon the CTCMCF key defined by parameter [625]. For example, if parameter [625] is 1, this parameter will be set to a hub number.

If the calculated CTCMCF is a value from 1 through 10, the channel map assignment is determined according to the values set for parameters [628] through [637].

[627] CTCMCF “From” Stop Key (positive if first service, negative if last)

Set this parameter to the ending value in the range of key values used to calculate the channel map for CFT-2900, CFT2200, and regular set-top terminals. Because the calculated CTCMCF must be a value between 1 and 10, this parameter should be no more than the value of parameter [626] plus 9. For example, if parameter [626] is 10, this parameter should be set to a value no greater than 19.

If parameter [625], CTCMCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service), is 3, to calculate the value based on the service number, set this parameter to a positive value (+) to base the Converter Group or subgroup on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the channel map on the last service number in this range sent in the command.

[628] CTCMCF “To” Value 01 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 1.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[629] CTCMCF “To” Value 02 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 2.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[630] CTCMCF “To” Value 03 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 3.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[631] CTCMCF “To” Value 04 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 4.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[632] CTCMCF “To” Value 05 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 5.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores () to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[633] CTCMCF “To” Value 06 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 6.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[634] CTCMCF “To” Value 07 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 7.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[635] CTCMCF “To” Value 08 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 8.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[636] CTCMCF “To” Value 09 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit map numbers to a set-top terminal if the calculated CTCMCF value is 9.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[637] CTCMCF “To” Value 10 ((2922RE - 29 = CFT-2900, 22 = CFT-2200, RE = Regular) (1 to 99))

Set this parameter to a string of three two-digit channel map numbers. The ACC-4000 assigns one of the two-digit channel map numbers to a set-top terminal if the calculated CTCMCF value is 10.

- The ACC-4000 assigns the first map number to a CFT-2900.
- The ACC-4000 assigns the second map number to a CFT2200.
- The ACC-4000 assigns the third map number to any other converter type.

Type underscores (_) to assign the default value for the converter type or to accept the value when sent by the business system.

The CTCMCF calculation is included as part of the description for parameter [625].

[638] * OPEN *****

Set this parameter to blanks.

[639] * OPEN *****

Set this parameter to blanks.

[640] * OPEN *****

Set this parameter to blanks.

[641] * OPEN *****

Set this parameter to blanks.

[642] * OPEN *****

Set this parameter to blanks.

[643] * OPEN *****

Set this parameter to blanks.

[644] Services To SEGA Frequency Map Defined On Controller (subtract absolute value from start value)

This parameter enables you to assign a Sega Frequency Map to a set-top terminal based on a specified service number. You can use this feature if the business system does not support the Sega Frequency Map field or when assigning Sega Frequency Maps by the business system is inappropriate.

If this feature is enabled, the system derives the channel map number using the following calculation:

$$\text{Sega Frequency Map} = \langle \text{service number} \rangle - \langle \text{starting service number} \rangle + |\langle \text{offset} \rangle|$$

where:

- $\langle \text{service number} \rangle$ is the first or the last service number specified in the command sent by the business system. The service number must be within the range of starting and ending service numbers defined by parameters [645], Services To SEGA Frequency Map Start, and [646], Services To SEGA Frequency Map Stop (positive if first service, negative if last). Set parameter [646] to a positive value (+) to assign the channel map on the first service number in this range sent in the command, or precede the value with a minus sign (–) to assign the channel map number on the last service number.
- $\langle \text{starting service number} \rangle$ is the value defined by parameter [645], Services To SEGA Frequency Map Start.
- $|\langle \text{offset} \rangle|$ is the absolute value of this parameter.

Set this parameter to one of the following values:

- 0** Disable the feature. Use the Sega Frequency Map specified by the business system or use the default Sega Frequency Map defined for the converter type.
- Not 0** Calculate the Sega Frequency Map based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link uses the absolute value in the calculation.

[645] Services To SEGA Frequency Map Start

Set this parameter to the starting service number in the range of service numbers used to calculate the Sega Frequency Map for a set-top terminal.

This feature is enabled only if the value of parameter [644] is not 0 (zero).

[646] Services To SEGA Frequency Map Stop (positive if first service, negative if last)

Set this parameter to the ending service number in the range of service numbers used to calculate the Sega Frequency Map for a set-top terminal. Set this parameter to a positive value (+) to base the Sega Frequency Map on the first service number in this range sent in the command, or precede the value with a minus sign (–) to base the Sega Frequency Map on the last service number in this range sent in the command.

This feature is enabled only if the value of parameter [644] is not 0 (zero).

[647] Hub to SEGA Frequency Map Defined On Controller (Offset + Hub Value - Start)

This parameter enables you to assign a Sega Frequency Map to a set-top terminal based on a specified hub number. You can use this feature if the business system does not support the Sega Frequency Map field or when assigning Sega Frequency Maps by the business system is inappropriate.

If this feature is enabled, the system derives the Sega Frequency Map using the following calculation:

$$\text{Sega Frequency Map} = \text{<hub number>} - \text{<starting hub number>} + | \text{<offset>} |$$

where:

- <hub number> is the hub number specified in the command sent by the business system. The hub number must be within the range of starting and ending hub numbers defined by parameters [648], Hub To SEGA Frequency Map Start (0 - 8191), and [649], Hub To SEGA Frequency Map Stop (0 - 8191).
- <starting hub number> is the value defined by parameter [648], Hub To SEGA Frequency Map Start (0 - 8191).
- | <offset> | is the absolute value of this parameter.

Set this parameter to one of the following values:

- | | |
|--------------|--|
| 0 | Disable the feature. Use the Sega Frequency Map specified by the business system or use the default Sega Frequency Map defined for the converter type. |
| Not 0 | Calculate the Sega Frequency Map based on the service number offset by the value of this parameter. If this is a negative value, the Wire Link uses the absolute value in the calculation. |

[648] Hub To SEGA Frequency Map Start (0 - 8191)

Set this parameter to a value from 0 (zero) through 8191 to define the starting hub number in the range of hub numbers used to calculate the Sega Frequency Map for a set-top terminal.

This feature is enabled only if parameter [647] is not 0 (zero).

[649] Hub To SEGA Frequency Map Stop (0 - 8191)

Set this parameter to a value from 0 (zero) through 8191 to define the ending hub number in the range of hub numbers used to calculate the Sega Frequency Map for a set-top terminal.

This feature is enabled only if parameter [647] is not 0 (zero).

Section 4

Business System Gateway Screens

This section describes how to establish and terminate the link to your business system. You can control the:

- On/off state
- Debug options
- Logging options

The ACC-4000 system lets you control its interface through a Business System Gateway (a Wire Link) with the Business System (also called the business system). Your ACC-4000 can have up to five Business System Gateways. From the Main Menu of Screen Options, click Gateway; or type its number in the box, then press ENTER to select the Business System Gateway option. The Business System Gateway screen appears.

BSG		Business System Gateway				
BUSINESS SYSTEM GATEWAY						
BSG Number: <input type="text" value="1"/>		BSG Status:				
1. Con		<input type="button" value="Start"/>	<input type="button" value="Stop"/>	<input type="button" value="Debug"/>	<input type="button" value="Logging"/>	<input type="button" value="Exit"/>
2. Ser						
3. Hea						
4. Con						
5. Data Files		<input type="button" value="Files"/>	11. Message Management			
6. Business System Gateway		<input type="button" value="Gateway"/>	12. Return to Login			
Enter Selection: <input type="text" value="6"/>						
Enter a valid number for BSG, followed by function key/button.						

Starting the Business System Gateway

This operation lets you start a Business System Gateway (BSG). If you try to start a Business System Gateway and have no pay services, the system shuts down.

- 1 From the Business System Gateway screen, enter a BSG Number as a one-digit integer.
- 2 Press ENTER or TAB to display the active or inactive status of your selected Business System Gateway.
- 3 The ACC-4000 sends a start command to the designated Business System Gateway when you click Start. A message appears, indicating one of three conditions:
 - The Business System Gateway was successfully started.
 - The Business System Gateway was already running.
 - The ACC-4000 was not configured to run that Business System Gateway.

Stopping the Business System Gateway

This operation lets you stop a current Business System Gateway.

- 1 From the Business System Gateway screen, enter a BSG Number as a one-digit integer.
- 2 Press ENTER or TAB to display the active or inactive status of your selected Business System Gateway.
- 3 The ACC-4000 sends a stop command to the designated Business System Gateway when you click Stop. A message appears, indicating one of two conditions:
 - The Business System Gateway was successfully stopped.
 - The Business System Gateway was already stopped.

Logging

This option lets you customize Business System Gateway parameters during real-time operations. Some of these parameters are used primarily for troubleshooting and deal with:

- Where the data is to be displayed
- The errors that should be ignored
- Printing the current statistics

Because selecting this option can substantially affect the Wire Link's performance, we recommend that you use it only under the direction of General Instrument personnel.

- 1 Enter a BSG Number as a one-digit integer.
- 2 Press ENTER or TAB to display the active or inactive status of your selected Business System Gateway.

- 3 Click Logging to display the Business System Gateway Log Options screen.**

BSGLOG	Business System Gateway Log Options		
BUSINESS SYSTEM GATEWAY			
BSG Number: 1		BSG Status: ACTIVE	
<input checked="" type="checkbox"/>	Write wirelink errors to system console		
<input checked="" type="checkbox"/>	Record transactions to transaction file		
<input checked="" type="checkbox"/>	Return all wirelink errors to host		
<input checked="" type="checkbox"/>	Use PPV module		
<input type="checkbox"/>	Display current statistics (not reset counters)		
<input type="checkbox"/>	Update purchases file with PPV transactions		
<input type="checkbox"/>	Return PPV statuses/errors to host		
<input type="checkbox"/>	Display PPV statuses/errors		
<input checked="" type="checkbox"/>	Write transactions to wirelink CRT :		
* FIELDS ONLY AVAILABLE IF PREVIOUS IS "Y"			
<input checked="" type="checkbox"/>	Non-critical errors OK	<input type="checkbox"/>	Display non-critical errors
<input checked="" type="checkbox"/>	Display brief format	<input type="checkbox"/>	Display brief/brief format
<input type="button" value="Accept"/> <input type="button" value="Cancel"/> <input type="button" value="Exit"/>			

- 4 Press ENTER or TAB until reaching the first field that you want to change.**
- 5 Press F6 to clear the field, then type a Y (yes) or N (no).**
- 6 Repeat steps 4 and 5 for every field that you want to change.**
- 7 Click Accept after making all desired changes.**

Debug

This option should be used only by General Instrument personnel. For debugging assistance, please call our Technical Response Center.

This option lets you customize Business System Gateway parameters during real-time operations. All of these parameters are used for troubleshooting and deal with:

- Updating or displaying differences between values sent by the business system and values stored on the ACC-4000
- Displaying and storing data received in Wire Link transactions
- Displaying the status of Wire Link command processing

Because selecting this option can substantially affect the Wire Link's performance, we recommend that you use it only under the direction of General Instrument personnel.

- 1 Enter a BSG Number as a one-digit integer.
- 2 Press ENTER or TAB to display the active or inactive status of your selected Business System Gateway.
- 3 Click Debug to display the Business System Gateway Debug Options screen.

BSGDEBUG		Business System Gateway Debug Options	
BUSINESS SYSTEM GATEWAY			
		BSG Number: 1	BSG Status: ACTIVE
1. Cor			
2. Ser	<input type="checkbox"/> N	Dump input buffer on protocol error	
3. Hea	<input type="checkbox"/> N	Get input from CRT instead of wirelink	
4. Cor	<input type="checkbox"/> N	Dump each byte when received	
5. Dat	<input type="checkbox"/> N	Dump output packet before host transmission	
6. Bus	<input type="checkbox"/> N	Refresh Mode - Display Differences	
	<input type="checkbox"/> N	Refresh Mode - Update Differences	
Ent	<input type="checkbox"/> N	Use "1-Second" wirelink(s)	
	<input type="checkbox"/> N	Always allow full change punches	
	<input type="checkbox"/> N	If PPV used, wait for actual return statuses	
	<input type="checkbox"/> N	Dump input packet when ETX received	
	<input type="checkbox"/> N	Dump input buffer when ETX received	
	<input type="checkbox"/> N	Immediately return successful to host	
		<input type="button" value="Accept"/>	<input type="button" value="Cancel"/> <input type="button" value="Exit"/>

- 4 Press ENTER or TAB until reaching the first field that you want to change.
- 5 Press F6 to clear the field, then type a **Y** (yes) or **N** (no).
- 6 Repeat steps 4 and 5 for every field that you want to change.
- 7 Click Accept after making all desired changes.

Section 5

Nightly Statistics

The Wire Link maintains statistics that you can generate on demand or regularly, at intervals. Set the interval using Wire Link configuration file parameter [055], Display Statistics Every “N” Minutes From 12 midnight (4 numerics, 1438 = 2 minutes to midnight).

You can generate statistics immediately by setting the Display current statistics (not reset counters) option to Y on the Business System Gateway Log Options screen.

The following is an example of the statistics as they might be displayed on the Wire Link Monitor screen, the Logger window, or the Wire Link transaction file.

```
170 - Packet Checksum Errors = 0
171 - Data Overrun Errors = 0
172 - Input Buffer Overflow Errors = 0
173 - Other I/O Errors = 0
174 - Parity Errors = 0
175 - Packet Size Errors = 0
176 - Inter Packet Time Out Errors = 0
177 - Packet Sequence Errors = 0
178 - STX/STX Sequences = 0
179 - Transmit Errors = 0
180 - XOFF Time Out Errors = 0
186 - Records Received = 93
187 - Records Successful = 83
188 - Invalid Record Type Errors = 2
189 - Other Errors = 10
190 - Assign New Subscriber - Type 260 = 11
191 - Change Subscriber Information - Type 262 = 14
192 - Delete Subscriber - Type 263 = 3
193 - Initialize Converter - Type 264 = 8
194 - Clear Parental/Purch. Keys - Type 265 = 8
195 - Read Subscriber Info From DB - Type 280 = 0
196 - Subscriber Info From DB - Type 281 = 0
199 - Collect SUB Purch. From Conv. - Type 284 = 0
206 - PPV Group Update By Subscriber ID- Type 294 = 0
207 - PPV Group Update By Serial Num. - Type 296 = 16
371 - Entries Received - From 294/296 = 16
372 - Upgrades Received - From 294/296 = 8
373 - Downgrades Received - From 294/296 = 8
374 - Transactions In Error - From 294/296 = 0
375 - Entries In Error - From 294/296 = 0
203 - Upload Requests From Host - Type 310 = 6
376 - Successful Upload Packets - From 311 = 6
377 - Retry Upload Packets - From 311 = 0
204 - Pay Service Requests From Host - Type 320 = 0
378 - Successful Upload Packets - From 321 = 0
379 - Retry Upload Packets - From 321 = 0
391 - There is no data for the All-2 commands Count
139
392 - There is no data for Act-Deact/1-Sec/Cvt Del Count
182 - For Hourly Statistics - The 1st Value Is Total Trans-
183 - actions Received Per Hr, The 2nd Is Transactions That
184 - Do Not Cause An Update To The Data Base, The 3rd Is
185 - PPV Packets Per Hr And The 4th Is Actual PPV Received
367 - Hourly Stat - 5 To 6 = 11/ 0 - 0/ 0
367 - Hourly Stat - 6 To 7 = 22/ 0 - 12/ 12
367 - Hourly Stat - 7 To 8 = 16/ 0 - 4/ 4
367 - Hourly Stat - 9 To 10 = 18/ 0 - 0/ 0
367 - Hourly Stat - 10 To 11 = 10/ 0 - 0/ 0
368 - Total Stats - 77/ 0 - 16/ 16
```

The following categories of statistics are printed or displayed:

- General error count
- ACC-4000 command count
- PPV/New ACC-4000 command count
- AH-2 command count
- Changes, phases, convert count
- Transactions per hour

If there are no statistics for a specific category, the following message displays:

There is no data for the <category name>

where <category name> is the name of the category for which statistics were not available as in the following:

388 -	There is no data for the General/Error Count
389 -	There is no data for the AH-4 commands Count
390 -	There is no data for the PPV/300 commands Count
391 -	There is no data for the AH-2 commands Count
392 -	There is no data for Act-Deact/1-Sec/Cvt Del Count
393 -	There is no data for Transactions Per Hour

The associated line numbers for these statistics are in the range of 387 through 393.

General Error Count

These statistics refer to errors that occur during communication over the Wire Link. This includes errors that occur when the Wire Link receives corrupted data or unexpected input.

These statistics include counts for the following:

+170	Packet Checksum Errors	Caused by static imposed over valid characters being received by the Wire Link. It is expected that between 0 to 20 of these errors occur each day.
+171	Data Overrun Errors	Caused by a bad hardware port. Contact General Instrument if you receive this error.
+172	Input Buffer Overflow Errors	Caused when static fills the 1024 Character Buffer. The system displays the following message if more than 800 input buffer overflow errors are generated: 228, Transmission Error (Input Buffer Overflow)
+173	Other I/O Errors	Caused by static imposed over valid characters being received by the Wire Link. Expect to receive from 0 to 20 of these errors each day.
+174	Parity Errors	Caused by static imposed over valid characters received by the Wire Link. Expect to receive from 0 to 20 of these errors each day.
+175	Packet Size Errors	Cased by static introducing false additional characters to the packet.
+176	Inter Packet Time Out Errors	Caused when an ETX is not received. Contact General Instrument if you receive this error.
+177	Packet Sequence Errors	Caused when the sequence number on the ACC-4000 and the business system do not match. The business system can send a Synchronization command (Record Type 001) to the ACC-4000 to reset the sequence number.
+178	STX/STX Sequence Errors	Caused when the STX for the next packet is received before receiving an ETX for the previous packet.
+179	Transmit Errors	Indicates a bad hardware port on the ACC-4000. Contact General Instrument if you receive this error.
+180	XOFF Time Out Errors	Wire Link times out after the business system sends an XOFF character to indicate the ACC-4000 should stop sending data for a specified period and the period is exceeded.

ACC-4000 Command Count

These statistics refer to commands that are received by the Wire Link to be processed on the ACC-4000. The report lists the commands by both name and record type. For example, Delete Converter Type 263 provides statistics for the Delete Converter command (Record Type 263).

These statistics include counts for the following:

+186	Records Received	The total number of commands received since the last statistics report was generated or since the system was rebooted. Equal to the sum of Records Successful, Invalid Record Type Errors, and Other Errors.
+187	Records Successful	Total number of commands processed successfully during the period since the last statistics report was generated or since the system was rebooted.
+188	Invalid Record Type Errors	The number of commands received with an invalid record type. If you receive this message, inform the business system to stop sending these commands.
+189	Other Errors	The number of errors, such as Converter ID Not Found, Serial Number Already In Use, and Serial Number Mis-Match. Review the messages and take corrective action to eliminate repetitive problems.
+190	Assign New Converter Type 260	The number of Assign (Add) New Converter commands (Record Type 260) that were successful.
+191	Change Converter Information Type 262	The number of Change Converter Information commands (Record Type 262) that were successful.
+192	Delete Converter Type 263	The number of Delete Converter commands (Record Type 263) that were successful.
+193	Initialize Converter Type 264	The number of Initialize Converter commands (Record Type 264) that were successful.
+194	Clear Parental/Purch. Keys Type 265	The number of Clear Parental/Purchase Keys commands (Record Type 265) that were successful.
+195	Subscriber Info From DB Type 280	The number of Database Information Upload - Request commands (Record Type 280) that were successful.
+196	Subscriber Info From DB Type 281	The number of Database Information Upload – Data commands (Record Type 281) that were successful.
+199	Collect SUB Purch From Conv - Type 284	The number of requests from the business system to collect the current purchases for two-way set-top terminals. These purchases are written to the data collection file on the ACC-4000; they are not sent to the business System.

PPV/New ACC-4000 Command Count

These statistics refer to the Pay-Per-Vew (PPV) commands, Record Types 294 and 296. Some sub-counts are provided to indicate the number of purchases in addition to the number of purchase records. Therefore, a total of 50 records represents 150 purchases. This kind of information is useful when three purchases are sent in each record.

An upgrade will authorize a set-top terminal for the event, a downgrade will deauthorize a set-top terminal for the event.

These statistics include counts for the following:

+203	Upload Requests From Host Type 310	The number of Purchase Upload – Request commands (Record Type 310) received from the business system to send purchase data. This pertains only to systems with IPPV. If blocking has been used, then the number of requests is less than the actual number of purchases.
+206	PPV Group Update By Converter ID Type 294	The total count of PPV Group Update transactions received by the ACC-4000. Because the system doesn't differentiate between whether PPV downloads were by converter ID or by serial number, this value is the same as the number of PPV transactions reported for the 296 command.
+207	PPV Group Update By Serial Num. Type 296	The total count of PPV Group Update transactions received by the ACC-4000. Because the system doesn't differentiate between whether PPV downloads were by converter ID or by serial number, this value is the same as the number of PPV transactions reported for the 294 command.
+358	External PPV Module Errors	Errors that occur using the external PPV module. Used in conjunction with parameter [082], Max Errors Allowed For System Errors With External PPV Module (0= no limit).
+370	Transactions Received Type 294	The number of PPV Group Update By Converter ID commands (Record Type 294) received.
+371	Entries Received From 294	The actual number of events received. This value is equal to the sum of the upgrades received and the downgrades received. This value is greater than or equal to the number of transactions received.
+372	Upgrades Received From 294	The number of service authorizations that were performed. An upgrade authorizes a set-top terminal for the event, a downgrade deauthorizes a set-top terminal for the event.
+373	Downgrades Received From 294	The number of service deauthorizations performed. An upgrade will add the event, a downgrade will delete the event.
+374	Transactions In Error From 294	These are errors returned to the business system.
+375	Entries In Error From 294	The number of entries in a PPV Group Update By Converter ID command (Record Type 294) that generated an error.
+376	Successful Upload Packets From 311	The number of Purchase Upload – Data commands (Record Type 311) containing purchase file data that were sent to the business system successfully. This value should match the statistic for Upload Requests From Host Type 310.
+377	Retry Upload Packets From 311	The number of Purchase Upload – Data command (Record Type 311) retries that were sent. The retry might have been requested due to a transmission error that interrupted a purchase upload.

AH-2 Command Count

These statistics refer to commands used to establish *hand-shaking* between the business system and the ACC-4000. The commands 000, 001, and 002 are commands sent to and from the business system and the ACC-4000 to maintain communications.

These statistics include counts for the following:

+209	Wake Up Packet Type 0	The number of Wake-Up Packet commands (Record Type 000) sent to the business system.
+210	Synchronization Command Type 1	The number of Synchronization commands (Record Type 001) sent by the business system to the ACC-4000.
+211	Controller Reset Type 2	The number of Controller Reset commands (Record Type 002) sent by the business system to the ACC-4000.
+213	Old Change (One-Way) - ADD. Type60	The number of Converter Update commands (Record Type 060) sent by the business system to the ACC-4000 to add one-way set-top terminals.
+214	Old Change (One-Way) - CHG. Type60	The number of Converter Update commands (Record Type 060) sent by the business system to the ACC-4000 to change one-way set-top terminals.
+215	Old Change (One-Way) - DEL. Type60	The number of Converter Update commands (Record Type 060) sent by the business system to the ACC-4000 to delete one-way set-top terminals.
+216	Old Change (One-Way). Type60	The number of Converter Update commands (Record Type 060) sent by the business system to the ACC-4000 to delete one-way set-top terminals.
+218	Old Change (Serial/Acc/Other) Type 170	The number of Converter Update (Serial/Account/Others) commands (Record Type 170) sent by the business system to the ACC-4000 to add, change, or delete set-top terminals.

Changes, Phases, Convert Count

These statistics refer to:

- Changes to the active status of a set-top terminal. For example, when the active status of a set-top terminal changes from Y to N or from N to Y.

This statistic should be checked daily. Note that the Change Active to No statistic increases on the day that the business system runs non-pays.

- Phase Information. This refers to errors that occur during 1-second Wire Link processing.

The Wire Link compares errors with the value of Wire Link parameter [079], Max Errors Allowed For “1-Second” Wire Link - Change Commands (# 060/170/262). During 1-second Wire Link processing, when the number of errors exceeds this value, the Wire Link returns to normal processing.

These statistics include counts for the following:

+353	Change Active to Yes	The number of times a command changed the active status of a set-top terminal from inactive to active.
+354	Change Active to No	The number of times a command changed the active status of a set-top terminal from active to inactive.
+355	1-Second WL Change Errors	The number of errors that occurred during 1-second Wire Link processing mode.
+383	Converted DEL To Changes 060/160/170	The number of times that a delete is converted to a change.

Transactions Per Hour

These statistics refer to the number of transactions received and processed per hour. There are two statistics printed. The first is the actual number of transactions received. The second number is the number of transactions that resulted in an update to the database.

You can use these statistics to determine the processing load distribution on the ACC-4000. The data should indicate peaks and valleys of processing during certain periods. Typically, the peaks are between 8:00 and 9:00 a.m., and between 4:00 and 5:00 p.m. Check for an overload situation that can occur when too many departments use the system at the same time. If this occurs, you might want to reschedule certain activities to evenly distribute the processing.

These statistics include counts for the following:

+367	Trans./No-Action Per Hour nn To nn	The number of all transactions that updated the database during each of the specified hourly periods.
+368	Total Trans./No-Action Per Period	The totals of the hourly statistics.

A significant difference between these two statistics can indicate that a large proportion of transactions were due to some reason other than a change of services.

Wire Link Commands and Field Tables

You can use the information in the commands and field tables for two purposes. First, the tables provide a convenient reference to the characteristics that belong to each converter type. Second, they can serve as troubleshooting tools. Here are some examples of how you might use this information:

- When tracking down Wire Link errors related to a specific command, use the Wire Link Commands table to identify the command and the converter types it affects.
- When running the DBSELECT utility, you can use the Wire Link Field table to determine that there will be no value in the DBSELECT report's channel map field for a type 3 converter, because a type 3 converter has no channel map. Therefore, when no value appears for this field, you will know that you are not seeing an error.
- If you need to access the PC lock feature across a range of set-top terminals, the Wire Link Field table indicates which set-top terminals have that feature.
- When monitoring a Wire Link transmission, you can use the Wire Link Field table to help you interpret the \$ you might see while monitoring Wire Link transmissions. A \$ represents a variety of information. It might mean that a set-top terminal's default value is being sent to the controller, or it might mean that an ACC-4000 database value for a specific set-top terminal is not being changed for one of two reasons: either the set-top terminal does not have the feature represented by the field, or the business system computer is not changing the value of that field.

Wire Link Commands Table

There are nineteen commands listed in this table. Each command has a number referred to as the record type.

Here is an example of how you can interpret command table entries: “When record type 264 (the Initialize Converter command) is sent from the business system, and IPPV set-top terminals are already initialized, and parameter [61] in wl#config.dat is F, then these types of set-top terminals are partially initialized.”

Use this legend to interpret the command list that begins on the following page.

Entry	Description
Blank	Command is not valid or applicable.
Y	Command is valid.
1	Command is not affected by the set-top terminal type.
2	You must first add the set-top terminal to the ACC-4000 Controller in Standalone mode.
3	For PROM-based set-top terminals (set-top terminal types 1 through 3), the initialization procedure is treated like a change.
4	Clears the purchase key.
5	Clears the parental control key.
6	Clears both the purchase and parental control (PC) keys.
7	If the set-top terminal is already initialized, change to a partial initialization (refresh) so that purchases are not lost, unless parameter [61] Always Do Initialize... is set to T in the Wire Link configuration file.

Command	Converter Types 1 - 12											
	1	2	3	4	5	6	7	8	9	10	11	12
001 Synchronization	1	1	1	1	1	1	1	1	1	1	1	1
002 Controller Reset	1	1	1	1	1	1	1	1	1	1	1	1
060 Converter Update	Y	Y	Y	2	2	2	2	2	2	2	2	2
170 Converter Update (Serial/Account/Others)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
260 Assign (Add) New Converter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
262 Change Converter Information	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
263 Delete Converter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
264 Initialize Converter	3	3	3	Y	Y	Y	Y	7	Y	Y	7	Y
265 Clear Parental/Purchase Keys				4	5	6		4			4	
280 Database Information Upload - Request	1	1	1	1	1	1	1	1	1	1	1	1
284 Collect Purchases from Converter				Y		Y					Y	
294 PPV Group Update By Converter ID	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
296 PPV Group Update By Serial Number	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
310 Purchase Upload – Request				Y		Y		Y			Y	
320 Pay Service Upload – Request	1	1	1	1	1	1	1	1	1	1	1	1
330 Pay Service Download – Data	1	1	1	1	1	1	1	1	1	1	1	1
340 Non-Responding Upload – Request				Y		Y					Y	
460 Assign (Add) New Converter (expanded)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
462 Change Converter Information (expanded)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Command	Converter Types 13 - 24											
	13	14	15	16	17	18	19	20	21	22	23	24
001 Synchronization	1	1	1	1	1	1	1	1	1	1	1	1
002 Controller Reset	1	1	1	1	1	1	1	1	1	1	1	1
060 Converter Update	2	2	2	2	2	2	2	2	2	2	2	2
170 Converter Update (Serial/Account/Others)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
260 Assign (Add) New Converter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
262 Change Converter Information	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
263 Delete Converter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
264 Initialize Converter	7	7	Y	7	7	Y	7	7	Y	7	7	Y
265 Clear Parental/Purchase Keys	4	4	5	6	6	5	6	6	5	6	6	5
280 Database Information Upload - Request	1	1	1	1	1	1	1	1	1	1	1	1
284 Collect Purchases from Converter		Y			Y			Y			Y	
294 PPV Group Update By Converter ID	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
296 PPV Group Update By Serial Number	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
310 Purchase Upload – Request	Y	Y		Y	Y		Y	Y		Y	Y	
320 Pay Service Upload – Request	1	1	1	1	1	1	1	1	1	1	1	1
330 Pay Service Download – Data	1	1	1	1	1	1	1	1	1	1	1	1
340 Non-Responding Upload – Request		Y			Y			Y			Y	
460 Assign (Add) New Converter (expanded)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
462 Change Converter Information (expanded)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Command	Converter Types 25 - 36											
	25	26	27	28	29	30	31	32	33	34	35	36
001 Synchronization	1	1	1			1	1	1	1			1
002 Controller Reset	1	1	1			1	1	1	1			1
060 Converter Update	2	2	2			2	2	2	2			2
170 Converter Update (Serial/Account/Others)	Y	Y	Y			Y	Y	Y	Y			Y
260 Assign (Add) New Converter	Y	Y	Y			Y	Y	Y	Y			Y
262 Change Converter Information	Y	Y	Y			Y	Y	Y	Y			Y
263 Delete Converter	Y	Y	Y			Y	Y	Y	Y			Y
264 Initialize Converter	7	7	Y			Y	7	7	Y			Y
265 Clear Parental/Purchase Keys	6	6	5			5	6	6	5			5
280 Database Information Upload - Request	1	1	1			1	1	1	1			1
284 Collect Purchases from Converter		Y						Y				
294 PPV Group Update By Converter ID	Y	Y	Y			Y	Y	Y	Y			Y
296 PPV Group Update By Serial Number	Y	Y	Y			Y	Y	Y	Y			Y
310 Purchase Upload – Request	Y	Y					Y	Y				
320 Pay Service Upload – Request	1	1	1			1	1	1	1			1
330 Pay Service Download – Data	1	1	1			1	1	1	1			1
340 Non-Responding Upload – Request		Y						Y				
460 Assign (Add) New Converter (expanded)	Y	Y	Y			Y	Y	Y	Y			Y
462 Change Converter Information (expanded)	Y	Y	Y			Y	Y	Y	Y			Y

		Converter Types 37 - 44							
Command		37	38	39	40	41	42	43	44
001	Synchronization	1	1	1	1	1			
002	Controller Reset	1	1	1	1	1			
060	Converter Update	2	2	2	2	2			
170	Converter Update (Serial/Account/Others)	Y	Y	Y	Y	Y			
260	Assign (Add) New Converter	Y	Y	Y	Y	Y			
262	Change Converter Information	Y	Y	Y	Y	Y			
263	Delete Converter	Y	Y	Y	Y	Y			
264	Initialize Converter	7	7	Y	7	7			
265	Clear Parental/Purchase Keys	6	6	5	6	6			
280	Database Information Upload - Request	1	1	1	1	1			
284	Collect Purchases from Converter		Y			Y			
294	PPV Group Update By Converter ID	Y	Y	Y	Y	Y			
296	PPV Group Update By Serial Number	Y	Y	Y	Y	Y			
310	Purchase Upload – Request	Y	Y		Y	Y			
320	Pay Service Upload – Request	1	1	1	1	1			
330	Pay Service Download – Data	1	1	1	1	1			
340	Non-Responding Upload – Request		Y			Y			
460	Assign (Add) New Converter (expanded)	Y	Y	Y	Y	Y			
462	Change Converter Information (expanded)	Y	Y	Y	Y	Y			

Wire Link Field Table

The Wire Link Field table describes all of the fields that can be included in any Wire Link command. Some fields apply to all set-top terminals and others apply only to specific converter types. For example, the Autotest field must be filled in for converter types 5 and 6, but not for converter types 1 through 4.

Use this legend to interpret the field table that follows.

Entry	Description
Blank	The field is not valid or applicable.
O	An optional field.
R	A required field.
A	An optional field. If sent, do command and initialization (add/init). For PROM-based set-top terminals (set-top terminal types 1 through 3), initialization gets treated like a change.
B	An optional field. If sent, do command and initialization (add/init). If the set-top terminal is already initialized, change to a partial initialize (refresh) so purchases are not lost, unless parameter [061] Always Do Initialize... is set to T in the Wire Link configuration file.
C	For set-top terminal types 5, 6, 12 through 23, and 27 through 44, the values are 1 for Yes and 2 for No. For set-top terminal types 24, 25, and 26, the values are 14 through 99.
D	Required, if set-top terminal has DCR installed.
1	Clears the purchase key.
2	Clears the parental key.
3	Clears the purchase and parental keys.
4	The telephone number is used to derive the telephone exchange (for example, the 674 in 12156744800). The controller stores only the telephone exchange that it uses to evenly distribute phone calls for data collection.
5	The last/favorite channel. For set-top terminal types 5 and 6, this field controls both last and favorite channels. For set-top terminal types 8 and higher, this field only controls the favorite channel.
6	The last/favorite channel, PC locked. For set-top terminal type 9, only field 5 or 6 is allowed — if both are set, PC locked overrides the last/favorite channel.
7	Time display/TCP. For set-top terminal types 5 and 6, the value is for time display. For set-top terminal types 8, 10, and higher, the value is for TCP.
8	The tuning type. For set-top terminal types 5 and 6, the values are H for harmonically related characters, S for standard, or I for incrementally related characters. For set-top terminal types 8 and higher, the values are H or S.
9	The purchase limit. For set-top terminal types 4, 6, 8, 11, 13, and 14, the maximum purchase limit is 16. For all other set-top terminal types, the maximum is 63.
*	Used only for 060/170 commands.

	Converter Types 1 - 15														
Field	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Account Number	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Action Code				1	2	3		1			1		1	1	2
Activate	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Amplifier	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Audio Compression Mode															
Authorization Type															
Autotest					R	R									
Aux 12V Option															
Change Services *	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Channel															
Channel Map					R	R		R		R	R	R	R	R	R
Channel Schedule Duration															
Channel Schedule Start Date															
Channel Schedule Start Time															
Clear Both	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Clear Events	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Clear Subscriptions	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Connect *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	O
Converter Group															
Converter ID	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Converter ID Count															
Converter Status	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Converter Sub-Group 1															
Converter Sub-Group 2															
Converter Sub-Group 3															
Converter Sub-Type															
Converter Type	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Copy Protection Mode															
Data Word															
Deactivate *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	O
Description															
Disconnect *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	O

	Converter Types 1 - 15														
Field	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Emergency Alert Mask					R	R									
Encoded Action Word *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Encoded Service Number															
Encoded Services To Follow	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Encoded Status Word															
Encoded Tier/Levels *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
End Of Clear Time															
End Of Purchase Time															
Entries to Follow															
Error Code				R		R		R			R		R	R	
Error Code Word															
Event Code															
Event Code Word															
Event Identifier															
Event Number															
Field Status Word 1	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Field Status Word 2	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Field Status Word 3															
Field Status Word 4															
1st Event Number This Session															
Frequency Map															
Hub Number	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Initialize Converter	A	A	A	O	O	O	O	O	O	O	O	O	B	B	O
Input Frequency Map															
IPG Region Code															
Item Number															
Language Specifier, Active															
Language Specifier, Alternate															
Language Specifier, Primary															
Last/Favorite Channel					5	5		5	6	5	5	5	5	5	5
Master/Slave Key															
Master/Slave Type															

	Converter Types 1 - 15														
Field	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MC Frequency Map															
No. Encoded Services	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
No. Encoded Tier/Levels *	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Output Channel 3					C	C						C	C	C	C
Output Frequency Map															
Pay Service Duration															
Pay Service Start Date															
Pay Service Start Time															
PC Locked					R	R		R	6	R	R	R	R	R	R
PC Morality					R	R									
Phone Index								R					R		
Poll Source															
Price															
Provider															
Purchase Date/Time															
Purchase Limit				9		9		9			9		9	9	
Purchases Allowed				R		R		R			R		R	R	
Records Sent This Session															
Remote			R	R	R	R	R	R	R	R	R	R	R	R	R
SEGA Frequency Map															
Serial Number	O	O	O	R	R	R	R	R	R	R	R	R	R	R	R
Service Number															
Services to Follow															
Service Type															
Status Code				R		R		R			R		R	R	
Status Code/Error Code															
Status Word 1	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Status Word 2															
Status Word 3															
Telephone Number								4					4		
Time Display/TCP					7	7		7		7	7	7	7	7	7
Time Zone					R	R		R		R	R	R	R	R	R

	Converter Types 1 - 15														
Field	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Timeout Limit				R	R	R	R	R	R	R	R	R	R	R	R
Total Number Of 1st Event Numbers This Session															
Total Price This Session															
Total Records On Purchase File															
Total Records "Service Not Found" This Session															
Tuning Type					8	8		8	8	8	8	8	8	8	8
UHF Output Channel															
Volume Control					R	R		R	R	R	R	R	R	R	R
Words To Follow															

	Converter Types 16 - 30														
Field	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Account Number	O	O	O	O	O	O	O	O	O	O	O	O			O
Action Code	3	3	2	3	3	2	3	3	2	3	3	2			2
Activate	R	R	R	R	R	R	R	R	R	R	R	R			R
Amplifier	O	O	O	O	O	O	O	O	O	O	O	O			O
Audio Compression Mode															
Authorization Type															
Autotest															
Aux 12V Option									R	R	R				
Change Services *	O	O	O	O	O	O	O	O	O	O	O	O			O
Channel															
Channel Map	R	R	R	R	R	R	R	R	R	R	R				R
Channel Schedule Duration															
Channel Schedule Start Date															
Channel Schedule Start Time															
Clear Both	O	O	O	O	O	O	O	O	O	O	O	O			O
Clear Events	O	O	O	O	O	O	O	O	O	O	O	O			O
Clear Subscriptions	O	O	O	O	O	O	O	O	O	O	O	O			O
Connect *	O	O	O	O	O	O	O	O	O	O	O	O			O

	Converter Types 16 - 30														
Field	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Converter Group															O
Converter ID	R	R	R	R	R	R	R	R	R	R	R	R			R
Converter ID Count															
Converter Status	O	O	O	O	O	O	O	O	O	O	O	O			O
Converter Sub-Group 1															O
Converter Sub-Group 2															O
Converter Sub-Group 3															O
Converter Sub-Type															
Converter Type	R	R	R	R	R	R	R	R	R	R	R	R			R
Copy Protection Mode															
Data Word															
Deactivate *	O	O	O	O	O	O	O	O	O	O	O	O			O
Description															
Disconnect *	O	O	O	O	O	O	O	O	O	O	O	O			O
Emergency Alert Mask															
Encoded Action Word *	R	R	R	R	R	R	R	R	R	R	R	R			R
Encoded Service Number															
Encoded Services To Follow	R	R	R	R	R	R	R	R	R	R	R	R			R
Encoded Status Word															
Encoded Tier/Levels *	R	R	R	R	R	R	R	R	R	R	R	R			R
End Of Clear Time															
End Of Purchase Time															
Entries to Follow															
Error Code	R	R		R	R		R	R		R	R				
Error Code Word															
Event Code															
Event Code Word															
Event Identifier															
Event Number															
Field Status Word 1	R	R	R	R	R	R	R	R	R	R	R	R			R
Field Status Word 2	R	R	R	R	R	R	R	R	R	R	R	R			R
Field Status Word 3															

	Converter Types 16 - 30														
Field	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Field Status Word 4															
1st Event Number This Session															
Frequency Map									R	R	R	R			
Hub Number	O	O	O	O	O	O	O	O	O	O	O	O			O
Initialize Converter	B	B	O	B	B	O	B	B	O	B	B	O			O
Input Frequency Map															
IPG Region Code															
Item Number															
Language Specifier, Active															
Language Specifier, Alternate															
Language Specifier, Primary															
Last/Favorite Channel	5	5	5	5	5	5	5	5	5	5	5	5			5
Master/Slave Key			R	R	R	R	R	R							R
Master/Slave Type			R	R	R	R	R	R							R
MC Frequency Map															
No. Encoded Services	R	R	R	R	R	R	R	R	R	R	R	R			R
No. Encoded Tier/Levels *	R	R	R	R	R	R	R	R	R	R	R	R			R
Output Channel 3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Output Frequency Map															
Pay Service Duration															
Pay Service Start Date															
Pay Service Start Time															
PC Locked	R	R	R	R	R	R	R	R	R	R	R	R			R
PC Morality															
Phone Index	R			R			R								
Poll Source															
Price															
Provider															
Purchase Date/Time															
Purchase Limit	9	9		9	9		9	9		9	9				
Purchases Allowed	R	R		R	R		R	R		R	R				
Records Sent This Session															

	Converter Types 16 - 30														
Field	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Remote	R	R	R	R	R	R	R	R	R	R	R	R			R
SEGA Frequency Map															
Serial Number	R	R	R	R	R	R	R	R	R	R	R	R			R
Service Number															
Services to Follow															
Service Type															
Status Code	R	R		R	R		R	R		R	R				
Status Code/Error Code															
Status Word 1	R	R	R	R	R	R	R	R	R	R	R	R			R
Status Word 2															
Status Word 3															
Telephone Number	4			4			4								
Time Display/TCP	7	7	7	7	7	7	7	7	7	7	7	7			7
Time Zone	R	R	R	R	R	R	R	R	R	R	R	R			R
Timeout Limit	R	R	R	R	R	R	R	R	R	R	R	R			R
Total Number Of 1st Event Numbers This Session															
Total Price This Session															
Total Records On Purchase File															
Total Records "Service Not Found" This Session															
Tuning Type	8	8	8	8	8	8	8	8							8
UHF Output Channel															
Volume Control	R	R	R	R	R	R	R	R	R	R	R	R			R
Words To Follow															

	Converter Types 33 - 44													
Field	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Account Number	O	O	O			O	O	O	O	O	O			
Action Code	3	3	2			2	3	3	2	3	3			
Activate	R	R	R			R	R	R	R	R	R			
Amplifier	O	O	O			O	O	O	O	O	O			
Audio Compression Mode									R	R	R			
Authorization Type														
Autotest														
Aux 12V Option														
Change Services *	O	O	O			O	O	O	O	O	O			
Channel														
Channel Map	R	R	R			R	R	R	R	R	R			
Channel Schedule Duration														
Channel Schedule Start Date														
Channel Schedule Start Time														
Clear Both	O	O	O			O	O	O	O	O	O			
Clear Events	O	O	O			O	O	O	O	O	O			
Clear Subscriptions	O	O	O			O	O	O	O	O	O			
Connect *	O	O	O			O	O	O	O	O	O			
Converter Group	O	O				O	O	O						
Converter ID	R	R	R			R	R	R	R	R	R			
Converter ID Count														
Converter Status	O	O	O			O	O	O	O	O	O			
Converter Sub-Group 1	O	O				O	O	O						
Converter Sub-Group 2	O	O				O	O	O						
Converter Sub-Group 3	O	O				O	O	O						
Converter Sub-Type						R	R	R						
Converter Type	R	R	R			R	R	R	R	R	R			
Copy Protection Mode						R	R	R						
Data Word														
Deactivate *	O	O	O			O	O	O	O	O	O			
Description														
Disconnect *	O	O	O			O	O	O	O	O	O			

	Converter Types 33 - 44													
Field	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Emergency Alert Mask														
Encoded Action Word *	R	R	R			R	R	R	R	R	R			
Encoded Service Number														
Encoded Services To Follow	R	R	R			R	R	R	R	R	R			
Encoded Status Word														
Encoded Tier/Levels *	R	R	R			R	R	R	R	R	R			
End Of Clear Time														
End Of Purchase Time														
Entries to Follow														
Error Code	R	R					R	R						
Error Code Word														
Event Code														
Event Code Word														
Event Identifier														
Event Number														
Field Status Word 1	R	R	R			R	R	R	R	R	R			
Field Status Word 2	R	R	R			R	R	R	R	R	R			
Field Status Word 3						R	R	R	R	R	R			
Field Status Word 4						R	R	R	R	R	R			
1st Event Number This Session														
Frequency Map														
Hub Number	O	O	O			O	O	O	O	O	O			
Initialize Converter	B	B	O											
Input Frequency Map														
IPG Region Code						R	R	R						
Item Number														
Language Specifier, Active						R	R	R						
Language Specifier, Alternate						R	R	R						
Language Specifier, Primary						R	R	R						
Last/Favorite Channel	5	5	N			R	R	R	R	R	R			
Master/Slave Key	R	R												
Master/Slave Type	R	R												

	Converter Types 33 - 44													
Field	31	32	33	34	35	36	37	38	39	40	41	42	43	44
MC Frequency Map														
No. Encoded Services	R	R	R			R	R	R	R	R	R			
No. Encoded Tier/Levels *	R	R	R			R	R	R	R	R	R			
Output Channel 3	C	C	C	C	C	C	C	C	C	C	C			
Output Frequency Map														
Pay Service Duration														
Pay Service Start Date														
Pay Service Start Time														
PC Locked	R	R	R			R	R	R	R	R	R			
PC Morality														
Phone Index														
Poll Source														
Price														
Provider														
Purchase Date/Time														
Purchase Limit	9	9					9	9		9	9			
Purchases Allowed	R	R					R	R		R	R			
Records Sent This Session														
Remote	R	R				R	R	R	R	R	R			
SEGA Frequency Map														
Serial Number	R	R	R			R	R	R	R	R	R			
Service Number														
Services to Follow						R	R	R	R	R	R			
Service Type														
Status Code	R	R					R	R		R	R			
Status Code/Error Code														
Status Word 1	R	R	R			R	R	R	R	R	R			
Status Word 2						R	R	R	R	R	R			
Status Word 3						R	R	R						
Telephone Number						O	O	O	O	O	O			
Time Display/TCP	7	7				7	7	7	7	7	7			
Time Zone	R	R	R			R	R	R	R	R	R			

	Converter Types 33 - 44													
Field	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Timeout Limit	R	R	R			R	R	R	R	R	R			
Total Number Of 1st Event Numbers This Session														
Total Price This Session														
Total Records On Purchase File														
Total Records “Service Not Found” This Session														
Tuning Type	8	8				R	R	R	R	R	R			
UHF Output Channel														
Volume Control	R	R				R	R	R	R	R	R			
Words To Follow														

Appendix A

System Messages

Wire Link Menu Screen Messages

The following is a list of the messages displayed on the ACC-4000 Business System Gateway screens. Corrective action is supplied where appropriate.

Number	Message Text	Description
105	System is not configured for BSG	This message occurs only if parameter [068] WIRELINK 1 is set to N in the system configuraton file, config.dat.
321	Invalid Request Number For This Menu	
421	CRT Station Signing Off !!	
423	WORKING	This indicates that the system is executing the command.
501	Pipe (snnnnn) Full	
900	No Action Taken -BSG Already Started	You attempted to start an instance of the Wire Link software that is already started. If you have multiple Wire Links, be sure to specify the number of the Wire Link before you attempt to start it.
901	No Action Taken - BSG Already Stopped	You attempted to stop an instance of the Wire Link software that has already been stopped. If you have multiple Wire Links, be sure to specify the number of the Wire Link before you attempt to stop it.
902	ERROR - BSG Request Not Implemented	
903	ERROR - Class sent to BSG is invalid	
904	Request Was Successful	
905	ERROR - Class sent from BSG is Invalid	
906	<<The Current Options for this Screen>>	
907	ERROR - BSG and screen out of sync	
908	No Action Taken - BSG is not permitted to start	

Wire Link Error and Status Messages

The Wire Link Monitor screen and the Logger window display messages and information about Wire Link transactions. For example, the following is information about an add converter command as it appears on the Wire Link Monitor screen or the Logger window:

```
11-10-88 09:27:45 I 150 - <<<- HOST MESSAGE - Seq. No. +00096 - 260 - ADD Converter ->>>
11-10-88 09:27:46 I 151 - activate = Y  convid = 28373/3 serial no = T8A750718171 conv type = 10  c. status = Q
11-10-88 09:27:46 I 156 - m/s type = $  m/s key = $ vol./ster = $ timeout      = $ services  = 7
11-10-88 09:27:46 I 157 - +0001 +0002 +0003 +0004 +0005 +0006 +0010
```

In the above example:

- 11-10-88 is the Date in the format MM-DD-YY.
- 09:27:46 is the current time in the format HH:MM:SS.
- I is the message type, where I = Information, E = Error, and F = Fatal.
Fatal errors are errors that cause the command to be rejected.
- 150, 151, 156, and 157 are sequential numbers of the lines displayed on the screen.

If an error occurs, the Wire Link Monitor screen and the Logger window display a message similar to the following:

```
11-10-88 09:27:47 E 051 - Converter ID Already Assigned - CONVID = 28373/3
```

In the above example:

- 11-10-88 is the date of the message in the format MM-DD-YY.
- 09:27:47 is the time of the message in the format HH:MM:SS.
- E is the message type where I = Information, E = Error, and F = Fatal.
- 051 is the number of the error.
- Converter ID Already Assigned is a description of the error.
- CONVID is the key name. The Key Name can be:
 - CONVID, to specify a converter ID number
or
 - SERIAL ID, to specify a serial number.
- 28373/3 is the key value.

If an error occurs and the packet is rejected by the Wire Link, the Wire Link Monitor screen and the Logger window display a message similar to the following:

```
11-10-88 09:27:47 F 351 - WL ERR - +00096/260, 28373/3, T8A75071817F, 123456789, RT = NO, ERR = 051
```

In the above example:

- 11-10-88 is the date in the format MM-DD-YY.
- 09:27:47 is the time of the message in the format HH:MM:SS.
- F is the message type where I = Information, E = Error, F = Fatal.
- 351 is the message number identifier (351 Error Message Line).
- WL ERR is the description of the error message.
- +00096 is the sequence number. This is the order of this command in the sequence of commands sent to the ACC-4000. The sequence number counter resets when the business system sends a Synchronization command, Record Type 001.
- 260 represents Record Type 260, Assign (Add) New Converter.
- 28373/3 is the converter ID and the check digit.
- T8A75071817F is the set-top terminal serial number.
- 123456789 is the account number.
- RT = NO indicates the business system should not re-send the command.
- ERR = 051 is the error number. If there are multiple errors, the error message numbers are separated by commas.

List of All Wire Link Messages

Wire Link message numbers are in the range of 50 and above. In the table that follows, the symbol preceding each message indicates the severity of the message. The following is a list of the symbols and the recommended actions:

* Business system personnel should be contacted

One asterisk (*) indicates the business system sent an inappropriate or invalid command to the ACC-4000. Please contact business system personnel for assistance in resolving problems associated with these messages.

** Contact General Instrument Personnel

Two asterisks (**) indicate the presence of data base or operating system errors on the ACC-4000. Please contact General Instrument personnel for assistance in resolving problems associated with these messages.

*** Contact General Instrument for Possible Change to One or More Configuration File Values

Three asterisks (***) indicate General Instrument personnel must determine whether to change values in the configuration file.

+ Informational Message On Line Printer or Wire Link CRT - Not An Error

A single plus sign (+) indicates an informational message, not an error, displayed on the Wire Link Monitor screen and the Logger window. No action is required in response to these messages.

++ Misc. errors are ignored unless logging screen options 9 and 10 are set = y

Two plus signs (+) indicate a message displayed only if parameter [045], Logging Option - Option 10 - Display Misc (non-critical) Errors, is set to T or the Display non-critical errors option on the Business System Gateway Log Options screen is set to Y.

(None) Normal Errors

Messages preceded by no symbols are normal errors indicating problems that can be fixed by ACC-4000 site personnel.

The following are the Wire Link messages:

Number	Message Text
050	Invalid Converter Type (snnnnn)
051	Converter ID Already Assigned CONVID = nnnnnnn/n
052	Account Number Mis-Match CONVID nnnnnnn/n
053	Error In Punch To Converter (snnnnn) (snnnnn) (snnnnn)
054	Converter ID or Serial Number Required
055	Serial No. Already Assigned SERIAL = xxxxxxxxxxxxx
056	No Serial Number Supplied
057	Invalid Serial Number SERIAL = xxxxxxxxxxxxx
058	Converter Initialization Failed nnnnnnn/n ERR = snnn
059	Account No. Already Assigned ACCOUNT = xxxxxxxxxxxxx
060	Telephone No. Not All Numeric TELEPHONE = xxxxxxxxxxxxx
061	Invalid Purchase Limit (snnnnn)
062	Invalid Timeout Limit (snnnnn)
063	Invalid Tuning Type (snnnnn)
++064	Invalid Time Zone (snnnnn)
065	Invalid Channel Map (snnnnn)
066	Invalid Output Channel 3 (snnnnn)
067	*** OPEN ***
068	Invalid Number of Entries to Follow (snnnnn)
069	Service Not Available (nnnnnnn/n) (snnnnn)
070	Converter ID Not Found CONVID = nnnnnnn/n
071	Serial Number Not Found SERIAL = xxxxxxxxxxxxx
072	Two-Way Converter Not Responding CONVID = nnnnnnn/n

Number	Message Text
++073	P. C. Locked Update Not Valid For Converter Type
074	Converter Mis-match (CONVID = nnnnnnn/n, BS = nn, D.B. = nn)
075	Invalid Action Code (snnnnn)
076	Invalid Converter ID (CONVID = nnnnnnn/n, TYPE = nn)
++077	Volume Control Update Not Valid For Converter Type
078	Serial Number Mis-Match CONVID = nnnnnnn/n
079	Invalid Date Format (xxxxxx)
080	Number of PPV Entries Invalid (snnnnn)
++081	Parental Control Morality Update Not Valid For Conv.
++082	Purchase Limit Update Not Valid For Converter Type
++083	Timeout Length Update Not Valid For Converter Type
++084	Emergency Alert Update Not Valid For Converter Type
++085	Tuning Type Update Not Valid For Converter Type
++086	Time Zone Update Not Valid For Converter Type
++087	Channel Map Update Not Valid For Converter Type
++088	Output Channel 3 Update Not Valid For Converter Type
++089	Purchases Allowed Update Not Valid For Converter Type
++090	Remote Update Not Valid For Converter Type
091	Clear Parental Control Update Not Valid For Conv Type
092	Invalid Emergency Alert (snnnnn)
**093	Trouble Accessing Pay Services
++094	Duplicate Service # In Update (nnnnnnn/n) (snnnnn)
++095	Serv # To Down Grade Not Selected (nnnnnnn/n) (snnnnn)
++096	Serv # To Up Grade Already Selected (nnnnnnn/n) (snnnnn)
097	Clear Purchase Event Update Not Valid For Conv. Type
++098	Last/Favorite Channel Update Not Valid For Conv. Type
++099	Time Display/TCP Update Not Valid For Converter Type
++100	Auto Test Update Not Valid For Converter Type
++101	Phone Index Update Not Valid For Converter Type
102	Invalid Phone Index (snnnnn)
103	Invalid Account Number ACCOUNT = xxxxxxxxxxxxx
104	Account Number Not Found ACCOUNT = xxxxxxxxxxxxx
**105	Other Data Base Error (snnnnn)
**106	Invalid Data Base Key Type (snnnnn)

Number	Message Text
***107	PPV Group Update Entry Successful (nnnnnn/n) (snnnnn)
108	** OPEN **
109	B.S. PPV Svc # Not On Pay Sv File (nnnnnnn/n) (snnnnn)
110	DB Record In Use Try Later CONVID = nnnnnnn/n
111	System Busy Can't Process Request Try Again Later
112	Changing Serial Number Invalid (DB = xxxxxxxxxxxx)
113	Error In Opening Communications With The Converters
114	Two-Way Converter Responding CONVID = nnnnnnn/n
115	Converter Is Not Two-Way CONVID = nnnnnnn/n
116	Converter Is Not Connected CONVID = nnnnnnn/n
117	B.S. Sv # No Longer On Pay Sv File (nnnnnnn/n) (snnnnn)
118	B.S. Svc Removed, bit map missing (nnnnnnn/n) (snnnnn)
*119	Invalid CONVID Format (snnnnn/snnnnn snnnnn) FATAL
*120	Record Rejected (snnnnn) Contact Host Personnel !!!
121	Dup Serv # In Update (nnnnnnn/n) (snnnnn) (+1/-1)
122	Converter Not Active CONVID = nnnnnnn/n
++123	Deleting Event Purchased By two-way Box (snnnnn)
124	Upgrade For Event That Is Over (nnnnnnn/n) (snnnnn)
125	Event Upgrade For 2-W Not Started (nnnnnnn/n) (snnnnn)
126	Serv's On DB And In Upgrade > 32 (nnnnnnn/n) (snnnnn)
127	Account Mis-Match (BS xxxxxxxxxxxx, DB xxxxxxxxxxxx)
128	ID = nnnnnnn/n, DB = xxxxxxxxxxxx, BS = xxxxxxxxxxxx
129	*** OPEN ***
130	*** OPEN ***
*131	Record Type Not Implemented Yet (snnnnn)
+132	This line prints as a blank line (to separate output)
*133	Invalid Record Type From Host (snnnnn)
**134	Open File Error
**135	Read File Error
**136	Write File Error
**137	Close File Error
138	*** OPEN ***
+139	This line prints on the top of a new page
+140	<<< Sync Received From Host Wire Wink >>>>

Number	Message Text
+141	Req Proc nnnnnnn/n, xxxxxxxxxxxx, xxxxxxxxxxxx /* N *
+142	Req Rej'd nnnnnnn/n, xxxxxxxxxxxx, xxxxxxxxxxxx /* N * FOR RETRY = YES
+143	Req Rej'd nnnnnnn/n, xxxxxxxxxxxx, xxxxxxxxxxxx /* N * FOR RETRY = NO
144	Sync Packet Size Error (snnnnn)
**145	Mapping To/From Configuration Area Error
146	*** OPEN ***
**147	Bad Task ID or Too Many Tasks Contact General Instrument !!!
**148	Invalid SIGNON Status (snnnnn) Contact General Instrument !!!
**149	Wire Link Port Attach Error (snnnnn)
+150	<<<- HOST MESSAGE Seq. No. nnnnnn nnn xxxxxxxxxxxxxxxxxxxxxxxx ->>>
+151	activate =convld= serial no = conv type= c. status =
+152	hub=account = phone no= remote = time zone =
+153	action c =emerg.= purchases = output ch. = phon indx =
+154	p. limit =t.type= amplifier = clr s & e= chan cref =
+155	time/tcp =autotst = last/fav= pc-locked= pc-moral=
+156	m/s type =m/s key = vol./ster = timeout= services=
157	Services are listed on this line
+158	>>>- REMOTE RESPONSE Seq. No. nnnnnn -<<<
+159	NUMBER OF RESPONDING CONVERTERS = NN
160	*** OPEN ***
+161	Number For PPV Group Update By Converter ID = nn
+162	Converter/Service 1, Converter/Service 2, etc
+163	*** OPEN ***
+164	Serial/Service 1, Serial/Service 2, etc
+165	*** OPEN ***
+166	*** OPEN ***
+167	*** OPEN ***
+168	*** OPEN ***
+169	*** OPEN ***
+170	Packet Checksum Errors = nnnnnn
+171	Data Overrun Errors = nnnnnn
+172	Input Buffer Overflow Errors = nnnnnn
+173	Other I/O Errors = nnnnnn
+174	Parity Errors = nnnnnn

Number	Message Text
+175	Packet Size Errors = nnnnnn
+176	Inter Packet Time Out Errors = nnnnnn
+177	Packet Sequence Errors = nnnnnn
+178	STX/STX Sequence Errors = nnnnnn
+179	Transmit Errors = nnnnnn
+180	XOFF Time Out Errors = nnnnnn
+181	Do Not Worry Errors over 1000 = phone xmit problem
182	*** OPEN ***
183	*** OPEN ***
184	*** OPEN ***
185	*** OPEN ***
+186	Records Received = nnnnnn
+187	Records Successful = nnnnnn
+188	Invalid Record Type Errors = nnnnnn
+189	Other Errors = nnnnnn
+190	Assign New Converter Type 260 = nnnnnn
+191	Change Converter Information Type 262 = nnnnnn
+192	Delete Converter Type 263 = nnnnnn
+193	Initialize Converter Type 264 = nnnnnn
+194	Clear Parental/Purch. Keys Type 265 = nnnnnn
+195	Read Converter Info From DB Type 280 = nnnnnn
+196	Converter Info From DB Type 281 = nnnnnn
+197	Read Converter Info From Conv Type 282 = nnnnnn
+198	Converter Info From Conv Type 283 = nnnnnn
+199	Collect Purchases From Conv Type 284 = nnnnnn
+200	Collected Purchases From Conv Type 285 = nnnnnn
+201	*** OPEN ***
+202	*** OPEN ***
+203	Upload Requests From Host Type 310 = nnnnnn
+204	Pay Service Request From Host Type 320 = nnnnnn
+205	Responding Converters Type 292 = nnnnnn
+206	PPV Group Update By Converter ID Type 294 = nnnnnn
+207	PPV Group Update By Serial Num. Type 296 = nnnnnn
+208	PPV Group Update By Account Num. Type 298 = nnnnnn

Number	Message Text
+209	Wake Up Packet Type 0 = nnnnnn
+210	Synchronization Command Type 1 = nnnnnn
+211	Controller Reset Type 2 = nnnnnn
+212	Text Messages Transmitted Type40 = nnnnnn
+213	Old Change (One-Way)- ADD. Type60 = nnnnnn
+214	Old Change (One-Way)- CHG. Type60 = nnnnnn
+215	Old Change (One-Way)- DEL. Type60 = nnnnnn
+216	Old Change (One-Way)- EAW. Type60 = nnnnnn
+217	Old Change (Serial/Account) Type 160 = nnnnnn
+218	Old Change (Serial/Acc/Other) Type 170 = nnnnnn
+219	This line prints at the end of the statistics display
+220	Protocol I/O Error (snnnnnn)
221	*** OPEN ***
222	*** OPEN ***
**223	Wire Link Port Detach Error (snnnnn)
**224	Put Received From Applic. Portion While in Input Mode
**225	Illegal Function Call by Applic. Portion of Wire Link
226	Transmission Error (Packet Checksum)
227	Transmission Error (Data Overrun)
228	Transmission Error (Input Buffer Overflow)
229	Transmission Error (Other I/O)
230	Transmission Error (Parity)
231	Transmission Error (Packet Size)
232	Transmission Error (In Packet Time Out)
233	Transmission Error (Packet Sequence)
234	Transmission Error (STX/STX Sequence)
235	Transmission Error (Transmit Error)
236	Transmission Error (XOFF Time Out)
237	*** OPEN ***
238	*** OPEN ***
239	*** OPEN ***
240	*** OPEN ***
+241	WL byte dump:ibuff in ptr = nnnn out ptr = nnnn cur byte = nn
+242	WL input packet vars dump:sequence = nnn size = nnn type =nnn

Number	Message Text
+243	WL packet protocol error dump of input buffer (char values are hex)
+244	WL dump of input buffer when ETX received (char values are hex)
245	*** OPEN ***
+246	WL input packet (char val are hex): len = nnnn strt = nnnn stop = nnn
+247	Starting Byte Number, Byte 1, Byte 2, etc (Bytes are displayed in HEX)
+248	WL informative msg: input zTX found --- where z = E or S
+249	WL dump of output buffer (char values are hex): final pkt char at nnn
250	*** OPEN ***
+251	WL dump of output packet (char values are hex): final pkt char at nnn
252	*** OPEN ***
+253	byte dump:nn()
+254	WL hex dump of work buffer on input: wbpklen = nnnn checksum = snnnnn
+255	WL hex dump of work buffer on output: wbpklen = nnnn checksum = snnnnn
256	*** OPEN ***
257	*** OPEN ***
258	*** OPEN ***
+259	This line prints at the end of the debug display
260	*** OPEN ***
261	Encoded Act. Wrd Not Set Or Invalid Bits snnnnn
262	Encoded Act. Wrd Connect And Disconnect snnnnn
263	Encoded Act. Wrd Activate And Deactivate snnnnn
264	Encoded Act. Wrd Disconnect and Other(s) snnnnn
265	*** OPEN ***
266	Encoded Act. Wrd No Action Found snnnnn
267	Encoded Act. Wrd Change and No Wds To Foll snnnnn
268	Encoded Act. Wrd Wds To Foll. And No Other snnnnn
269	*** OPEN ***
270	*** OPEN ***
**271	Trouble With Prologs In Start Up
**272	Trouble With System Config In Start Up
+273	Wire Link Not Requested
**274	Trouble With Wire Link Config File In Start Up
**275	Trouble With Signon In Start Up
**276	Wire Link Not Started

Number	Message Text
+277	Wire Link Restarting Because Of System Restart
+278	*** OPEN ***
279	*** OPEN ***
**280	TASK COMMUNICATION ERROR Failure While Doing Mapping
**281	TASK COMMUNICATION ERROR Full (snnnnn)
**282	TASK COMMUNICATION ERROR Closed (snnnnn)
**283	TASK COMMUNICATION ERROR Bad Destination (snnnnn)
**284	TASK COMMUNICATION ERROR Bad Task Name (snnnnn)
**285	TASK COMMUNICATION ERROR Problems With Inter-Task C
+286	Request From Screen Was Successful
+287	Wire Link Already Started
+288	Wire Link Already Stopped
**289	Error In Class Sent From The Screen
**290	Bad Class From Wire Link
**291	Invalid Screen Request Option (snnnnn)
**292	Screen Request Is Out Of Sync From Current Status
**293	Wire Link Cannot Signon Ignored (snnnnn/snnnnn)
**294	Wire Link Cannot Signoff Ignored (snnnnn/snnnnn)
+295	Wire Link NOT Running or 2nd Wire Link NOT Running
+296	Wink Link Running or 2nd Wire Link NOT Running
+297	xxxxxxxxxxxxxxx Values = (snnnnn/snnnnn)
+298	System Message To Shut Down Received Terminating WL
*299	Add Invalid For Type 060/160/170 CONVID = nnnnnnn/n
*300	DEL Invalid For Type 060/160/170 CONVID = nnnnnnn/n
*301	Add Not Allowed CONVID = nnnnnnn/n xxxxxxxxxxxxxx
*302	Change Not Allowed CONVID = nnnnnnn/n xxxxxxxxxxxxxx
*303	Delete Not Allowed CONVID = nnnnnnn/n xxxxxxxxxxxxxx
**304	xxxxxxxxx Globals Out Of Order From xxxxxxxxx FATAL!
+305	End Of Subscriber File Encountered
306	*** OPEN ***
307	*** OPEN ***
308	*** OPEN ***
309	*** OPEN ***
**310	WL Port Initialization Trouble With PROLOG

Number	Message Text
**311	WL Port Initialization Trouble With CPROLOG
**312	WL Port Initialization Trouble Pointing To CONFIG
+313	WL Port Initialization Wire Link Not Requested
**314	WL Port Initialization Trouble Pointing Back From CONFIG
**315	WL Port Initialization Trouble Reading WLCONFIG File
**316	WL Port Initialization Trouble Accessing The DZ11 Board
+317	Wire Link Port Initialization PPV Wire Link Not Requested
**318	Wire Link Port Initialization Trouble Accessing The DHV11 Board
319	*** OPEN ***
+320	return level =curr serv = avail credit =services
+321	# of transactions =
+322	transaction 1, transaction 2, etc
323	*** OPEN ***
324	*** OPEN ***
325	*** OPEN ***
326	*** OPEN ***
327	*** OPEN ***
328	*** OPEN ***
329	*** OPEN ***
330	*** OPEN ***
331	Hub Number Not Configured At This Site (snnnnn)
332	Invalid Hub Number (snnnnn)
++333	Master/Slave Type Not Valid For Converter Type
334	Invalid Master/Slave Type (snnnnn)
++335	Master/Slave Key Not Valid For Converter Type
336	*** OPEN ***
337	*** OPEN ***
338	*** OPEN ***
339	*** OPEN ***
340	*** OPEN ***
341	*** OPEN ***
342	*** OPEN ***
343	*** OPEN ***
344	*** OPEN ***

Number	Message Text
345	*** OPEN ***
346	*** OPEN ***
347	*** OPEN ***
+348	This blank line is printed between transactions
+349	Unknown Error In Message Processor NN = (snnnnn)
350	*** OPEN ***
+351	WL ERRSEQ = TYP = XXXXX RETRY = ERRs = Where "xxxxx" is CONVID, SERIAL, OR NONE
352	*** OPEN ***
+353	Change Active to Yes = nnnnnn
+354	Change Active to No = nnnnnn
+355	1-Second WL Change Errors = nnnnnn
+356	1-Second WL PPV Errors = nnnnnn
+357	1-Second WL Add Errors = nnnnnn
+358	External PPV Module Errors = nnnnnn
+359	Currently In Phase Number = nnnnnn
360	*** OPEN ***
361	*** OPEN ***
362	*** OPEN ***
363	*** OPEN ***
364	*** OPEN ***
365	*** OPEN ***
366	*** OPEN ***
+367	Trans./No-Action Per Hour nn To nn = nnnnn/nnnnn
+368	Total Trans./No-Action Per Period= nnnnn/nnnnn
369	*** OPEN ***
+370	Transactions Received Type 294 = nnnnnn
+371	Entries Received From 294 = nnnnnn
+372	Upgrades Received From 294 = nnnnnn
+373	Downgrades Received From 294 = nnnnnn
+374	Transactions In Error From 294 = nnnnnn
+375	Entries In Error From 294 = nnnnnn
+376	Successful Upload Packets From 311 = nnnnnn
+377	Retry Upload Packets From 311 = nnnnn
378	Successful Upload Packets From 321 = nnnnnn

Number	Message Text
379	Retry Upload Packets From 321 = nnnnn
+380	Warning Changing Processing Phases From nn To nn
+381	Converted Changes To Adds = nnnnn
+382	Converted Adds To Changes = nnnnn
+383	Converted DEL To Changes 060/160/170 = nnnnn
384	*** OPEN ***
+385	Request General Status Type 300 = nnnnn
+386	General Status Type 301 = nnnnn
+387	Change Converter Info Brief Type 302 = nnnnn
+388	There is no data for the General/Error Count
+389	There is no data for the AH-4 commands Count
+390	There is no data for the PPV/NEW AH-4 commands Count
+391	There is no data for the AH-2 Commands Count
+392	There is no data for the Changes/Phases/Convert Count
+393	There is no data for Transactions Per Hour
394	Cannot Do Data Collection At this time!
395	Error Doing Poll To Converter FAILCODE = xxxxx
+396	Number Of Errors During Poll To Converter = xx
397	*** OPEN ***
398	*** OPEN ***
+399	This line prints as a blank line
+400	*** OPEN ***
+401	Started Wire Link Upload!
+402	Wire Link Upload Finished!
*403	Invalid Status/Error Code in Upload 310 = XX/YY
*404	Invalid Request Upload Never Started!
*405	Invalid Request Already Started Upload!
**406	Cannot Read Purchase File!-- (nn)
+407	Request Successful : End of Purchase File Remote Status = nn
+408	Time = YYMMDDHHMM, Who Purch = W
+409	S=nn, Convid = XXXXXXXXXXXX, Serial = YYYYYYYYYYYY, Acct =
+410	Req Success : S=nn, Convid = XXXXXXXXXXXX, Serial = YYYYYYYYYYYY, Acct =
411	*IMPORTANT*** WIRELINK UPLOAD ABORTED!!
+412	Refresh Differences: Convid = nnnnn/n, Serial = xxxxxxxxxxxx, Acct =

Number	Message Text
413	: AH4 DB=BS=
414	SERV's DBvBS snnnnn snnnnn snnnnn snnnnn snnnnn
415	Upload Restart Record Not Reached Yet (nnnnn/mmmmm)
416	Restart Number Exceeds No. Of Purchases (nnnnn/mmmmm)
417	Cannot Read Pay Service File! -- (nn)
418	Cannot Open Pay Service File!
419	*** OPEN ***
420	Request Successful: End of Pay Service File Remote Status = nn
421	Req Success:s=nnitem=nnnnsvc=nnnncode=nnntype=cch=cnn
422	chsch: date=yyyymmddtime=hhmmduration=hhhhmmcl=mmpur=hhhhmm
423	pay svc: date=yyyymmddtime=hhmmduration=hhhhmmprice=ddddcc id=cccc
424	Failed To Open Download File (nnnnn)
425	Failed To Write Record To Download File (nnnnn)
426	Failed To Close Download File (nnnnn)
427	Records written does not match Host records sent (nnnnn/nnnnn)
428	Bad Data Encountered At Position (nnnnn)
429	Missing Record During Download, AH4/Host (nnnnn/nnnnn)

Appendix B

Converter Types

In the ACC-4000 system, all converter types are identified by the following numbers:

Type	Name	Description
1	DRX STARCOM II, 400	One-way, PROM-based
2	DRZA STARCOM 450	One-way, PROM-based, 128 Tags
3	DRZI STARCOM 450/P3	One-way, PROM-based, 256 Tags
4	DRZI AT STARCOM 450	Two-way
5	XT5 STARCOM V	One-way
6	XT5 STARCOM V	Two-way
7	DRZI AV STARCOM 450	One-way
8	DP5 STARCOM VI+	FONE-way
9	DL4 STARCOM VI	One-way
10	DP5 STARCOM VI+	One-way
11	DP5 STARCOM VI+	Two-way
12	DPBB STARCOM VI+	One-way
13	DPBB STARCOM VI+	FONE-way
14	DPBB STARCOM VI+	FONE-way
15	DP7 IMPULSE 7000	One-way
16	DP7 IMPULSE 7000	FONE-way
17	DP7 IMPULSE 7000	Two-way
18	DPBB7 IMPULSE 7000	One-way
19	DPBB7 IMPULSE 7000	FONE-way
20	DPBB7 IMPULSE 7000	Two-way
21	DPBB STARCOM VI+ Master/Slave	One-way
22	DPBB STARCOM VI+ Master/Slave/ STARFONE	FONE-way
23	DPBB STARCOM VI+ Master/Slave/ STARVUE	Two-way
24	IDP7 International 7000	One-way
25	IDP7 International 7000/STARFONE	FONE-way
26	IDP7 International 7000/STARVUE	Two-way
27	DCR	One-way
28	DCR 3000S/4000S	One-way

Type	Name	Description
29	DCR	Two-way (not implemented)
30	CFT2000	One-way
31	CFT2000	FONE-way
32	CFT2000	Two-way
33	STARPORT	One-way
34	STARPORT	FONE-way (not implemented)
35	STARPORT	Two-way (not implemented)
36	CFT2200	One-way
37	CFT2200 STARFONE	FONE-way
38	CFT2200 STARVUE	Two-way
39	CFT2900	One-way
40	CFT2900 STARFONE	FONE-way
41	CFT2900 STARVUE	Two-way
42	SEGA	One-way

IMPULSE 7000 Considerations

The IMPULSE 7000:

- Is the same as STARCOM VII.
- Converter Types 19 and 20 perform the same functions as the STARCOM VI+.
- Comes in three versions:
 - DP7100 - RF unit, channel 2 or 3 output.
 - DPV7200 - offers volume control for RF systems, and a software-selectable output channel letting you switch between the two converter outputs.
 - DPBB7300 - baseband unit, and a software-selectable output channel letting you switch between the two converter outputs.

International CFT2000 Consideration

In the system configuration file, config.dat, set parameter [245], International converter flag, to T when using international CFT2000 converters.

Explanation of Model Number Codes

STARCOM II, 400 – One-Way (Type 1)

	D	R	X	-	*	-	*	*	-	*	*
Digital Remote Ready 400 MHz/RF Unit	D	R	X								
Channel 2 Output Channel 3 Output Channel 4 Output					2 3 4						
With A/B Switch Without A/B Switch							A Blank	B Blank			
Special Product Order (SPO)										*	*

STARCOM 450 (without IR enable/disable) – One-Way (Type 2)

	D	R	Z	*	-	*	A	-	*	*	*	-	*	*
Digital Remote Ready 450 MHz/RF Unit	D	R	Z											
Enhanced Parental Control Dynamic Scrambling Non-Volatile Memory Master Slave				P D N M S										
Channel 2 Output Channel 3 Output Channel 4 Output Addressable					2 3 4		A							
5 Set-Top Keys 18 Set-Top Keys								5 Blank						
With A/B Switch Without A/B Switch									A Blank	B Blank				
Special Product Order (SPO)													*	*

STARCOM 450/P3 (with IR enable/disable) – One-Way (Type 3)

	D	R	Z	I	*	-	*	A	-	*	*	*	-	*	*
Digital Remote Ready 450 MHz/RF Unit IR Enable/Disable	D	R	Z	I											
Enhanced Parental Control Dynamic Scrambling Non-Volatile Memory Master Slave					P										
					D										
					N										
					M										
					S										
Channel 2 Output Channel 3 Output Channel 4 Output Addressable						2									
						3									
						4									
							A								
5 Set-Top Keys 18 Set-Top Keys									5						
									Blank						
With A/B Switch Without A/B Switch										A		B			
										Blank		Blank			
Special Product Order (SPO)													*	*	*

STARCOM 450 – Two-Way (Type 4)

	D	R	Z	I	*	-	*	A	T	-	*	*	*	-	*	*
Digital Remote Ready 450 MHz/RF Unit IR Enable/Disable	D	R	Z	I												
Enhanced Parental Control Dynamic Scrambling Non-Volatile Memory Master Slave				P D N M S												
Channel 2 Output Channel 3 Output Channel 4 Output						2 3 4										
Addressable Two-way Unit via STARVUE							A T									
5 Set-Top Keys 18 Set-Top Keys										5 Blank						
With A/B Switch Without A/B Switch											A Blank	B Blank				
Special Product Order (SPO)														*	*	*

STARCOM V – One-Way (Type 5)

	X	T	5	-	*	1	*	-	*	*
550 MHz/RF Unit			5							
Channel 2/3 Output Channel 3/4 Output					2 4					
One-way Unit						1				
Single Cable Dual Cable							0 1			
Special Product Order (SPO)									*	*

STARCOM V – Two-Way (Type 6)

	X	T	5	-	*	2	*	-	*	*
550 MHz/RF Unit			5							
Channel 2/3 Output Channel 3/4 Output					2 4					
Two-way Unit						2				
Single Cable Dual Cable							0 1			
Special Product Order (SPO)									*	*

STARCOM 450-*AV Downloadable – One-Way (Type 7)

	D	R	Z	I	*	-	*	A	V	-	*	*	*	-	*	*
Digital Remote Ready 450 MHz/RF Unit IR Enable/Disable	D	R	Z	I												
Enhanced Parental Control Dynamic Scrambling Non-Volatile Memory Master Slave				P D N M S												
Channel 2 Output Channel 3 Output Channel 4 Output						2 3 4										
Addressable One-way Downloadable							A V									
5 Set-Top Keys 18 Set-Top Keys									5 Blank							
With A/B Switch Without A/B Switch										A Blank	B Blank					
Special Product Order (SPO)															*	*

STARCOM VI+/STARFONE – FONE-Way (Type 8)

	D	P	*	5	-	*	3	*	-	*	*
Downloadable Plus	D	P									
Without Volume Control			Blank								
With Volume Control			V								
550 MHz/RF Unit				5							
Channel 2 Output						2					
(without Volume Control)											
Channel 3 Output						3					
(without Volume Control)											
Channel 4 Output						4					
(without Volume Control)											
Channel 2/3 Output						2					
(with Volume Control)											
Channel 3/4 Output						4					
(with Volume Control)											
Two-way Unit via STARFONE							3				
Without A/B Switch and Circuitry								0			
With A/B Switch and Circuitry								1			
With A/B Circuitry Only								2			
Special Product Order (SPO)										*	*

STARCOM VI – One-Way (Type 9)

	D	L	4	*	-	*	*	-	*	*	-	*	*
Downloadable Plus	D	L											
450 MHz/RF Unit			4										
Alternate Channel Map				A									
Channel 2 Output						2							
Channel 3 Output						3							
Channel 4 Output						4							
Without A/B Switch and Circuitry							0						
With A/B Switch and Circuitry							1						
With A/B Circuitry Only							2						
Special Channel Map (01-99)									*	*			
Special Product Order (SPO)												*	*

STARCOM VI+ – One-Way (Type 10)

	D	P	*	5	-	*	1	*	-	*	*
Downloadable Plus	D	P									
Without Volume Control			Blank								
With Volume Control			V								
550 MHz/RF Unit				5							
Channel 2 Output						2					
(without Volume Control)											
Channel 3 Output						3					
(without Volume Control)											
Channel 4 Output						4					
(without Volume Control)											
Channel 2/3 Output						2					
(with Volume Control)											
Channel 3/4 Output						4					
(with Volume Control)											
One-way Addressable							1				
Without A/B Switch and Circuitry								0			
With A/B Switch and Circuitry								1			
With A/B Circuitry Only								2			
Special Product Order (SPO)										*	*

If the SPO is R1 or higher, the converter has the time controlled programming (TCP) option.

STARCOM VI+ – Two-Way (Type 11)

	D	P	*	5	-	*	2	*	-	*	*
Downloadable Plus	D	P									
Without Volume Control			Blank								
With Volume Control			V								
550 MHz/RF Unit				5							
Channel 2 Output (without Volume Control)						2					
Channel 3 Output (without Volume Control)						3					
Channel 4 Output (without Volume Control)						4					
Channel 2/3 Output (with Volume Control)						2					
Channel 3/4 Output (with Volume Control)						4					
Two-way Addressable							2				
Without A/B Switch and Circuitry								0			
With A/B Switch and Circuitry								1			
With A/B Circuitry Only								2			
Special Product Order (SPO)										*	*

If the SPO is R1 or higher, the converter has the time controlled programming (TCP) option.

STARCOM VI+ Baseband – One-Way (Type 12)

	D	P	B	B	-	*	1	*	-	*	*
Downloadable Plus	D	P									
Baseband			B	B							
Channel 2/3 Output (with Volume Control)						2					
Channel 3/4 Output (with Volume Control)						4					
One-way Addressable							1				
Without A/B Switch and Circuitry								0			
With A/B Switch and Circuitry								1			
With A/B Circuitry Only								2			
Special Product Order (SPO)										*	*

STARCOM VI+ Baseband/STARFONE – FONE-Way (Type 13)

	D	P	B	B	-	*	3	*	-	*	*
Downloadable Plus	D	P									
Baseband			B	B							
Channel 2/3 Output (with Volume Control)						2					
Channel 3/4 Output (with Volume Control)						4					
Two-way Unit via STARFONE							3				
Without A/B Switch and Circuitry								0			
With A/B Switch and Circuitry								1			
With A/B Circuitry Only								2			
Special Product Order (SPO)										*	*

STARCOM VI+ Baseband/STARVUE – FONE-Way (Type 14)

	D	P	B	B	-	*	2	*	-	*	*
Downloadable Plus	D	P									
Baseband			B	B							
Channel 2/3 Output (with Volume Control)						2					
Channel 3/4 Output (with Volume Control)						4					
Two-way Unit via STARVUE							2				
Without A/B Switch and Circuitry								0			
With A/B Switch and Circuitry								1			
With A/B Circuitry Only								2			
Special Product Order (SPO)										*	*

IMPULSE 7000 – One-Way (Type 15)

	D	P	*	7	*	*	*	/	*	*	*	*	-	*	*
Downloadable Plus	D	P													
Without Volume Control With Volume Control 550 MHz/RF Unit			Blank V	7											
Without Volume Control Volume Control					1 2										
One-way Unit One-way with Expansion ROM						0 1									
Channel 2 Output (without Volume Control) Channel 3 Output (without Volume Control) Channel 4 Output (without Volume Control) Channel 2/3 Output (with Volume Control) Channel 3/4 Output (with Volume Control)							2 3 4 2 4								
Special Product Order (SPO)									*	*	*	*			
ROM Version Designation														*	*

IMPULSE 7000/STARFONE – FONE-Way (Type 16)

	D	P	*	7	*	*	*	/	*	*	*	*	-	*	*
Downloadable Plus	D	P													
Without Volume Control With Volume Control 550 MHz/RF Unit			Blank V	7											
Without Volume Control With Volume Control				1 2											
Two-way Unit via STARFONE					3										
Channel 2 Output (without Volume Control) Channel 3 Output (without Volume Control) Channel 4 Output (without Volume Control) Channel 2/3 Output (with Volume Control) Channel 3/4 Output (with Volume Control)						2 3 4 2 4									
Special Product Order (SPO)									*	*	*	*			
ROM Version Designation														*	*

IMPULSE 7000/STARVUE – Two-Way (Type 17)

	D	P	*	7	*	*	*	/	*	*	*	*	-	*	*
Downloadable Plus	D	P													
Without Volume Control With Volume Control 550 MHz/RF Unit			Blank V	7											
Without Volume Control With Volume Control				1 2											
Two-way Unit via STARVUE					2										
Channel 2 Output (without Volume Control) Channel 3 Output (without Volume Control) Channel 4 Output (without Volume Control) Channel 2/3 Output (with Volume Control) Channel 3/4 Output (with Volume Control)						2 3 4 2 4									
Special Product Order (SPO)									*	*	*	*			
ROM Version Designation														*	*

IMPULSE 7000 Baseband – One-Way (Type 18)

	D	P	B	B	7	*	*	*	/	*	*	*	*	-	*	*
Downloadable Plus	D	P														
Baseband			B	B												
550 MHz/BB Unit					7	3										
One-way Unit							0									
One-way with Expansion ROM							1									
Two-way Unit via STARFONE							3									
Channel 2/3 Output								2								
Channel 3/4 Output								4								
Special Product Order (SPO)									*	*	*	*				
ROM Version Designation															*	*

IMPULSE 7000 Baseband/STARFONE – FONE-Way (Type 19)

	D	P	B	B	7	*	*	*	/	*	*	*	*	-	*	*
Downloadable Plus	D	P														
Baseband			B	B												
550 MHz/BB Unit					7	3										
Two-way Unit via STARFONE							3									
Channel 2/3 Output								2								
Channel 3/4 Output								4								
Special Product Order (SPO)									*	*	*	*				
ROM Version Designation															*	*

IMPULSE 7000 Baseband/STARVUE – Two-Way (Type 20)

	D	P	B	B	7	*	*	*	/	*	*	*	*	-	*	*
Downloadable Plus	D	P														
Baseband			B	B												
550 MHz/BB Unit					7	3										
Two-way Unit via STARVUE						2										
Channel 2/3 Output Channel 3/4 Output							2 4									
Special Product Order (SPO)									*	*	*	*				
ROM Version Designation															*	*

STARCOM VI+ Baseband Master/Slave – One-Way (Type 21)

	D	P	B	B	-	*	*	*	-	*	*
Downloadable Plus	D	P									
Baseband			B	B							
Channel 2/3 Output (with Volume Control) Channel 3/4 Output (with Volume Control)						2 4					
One-way Unit							1				
Without A/B Switch and Circuitry								0			
Special Product Order (SPO)										M	1

STARCOM VI+ Baseband Master/Slave/STARFONE – FONE-Way (Type 22)

	D	P	B	B	-	*	*	*	-	*	*
Downloadable Plus	D	P									
Baseband			B	B							
Channel 2/3 Output (with Volume Control) Channel 3/4 Output (with Volume Control)						2 4					
Two-way Unit via STARFONE							3				
Without A/B Switch and Circuitry								0			
Special Product Order (SPO)										M	1

STARCOM VI+ Baseband Master/Slave/STARVUE – Two-Way (Type 23)

	D	P	B	B	-	*	*	*	-	*	*
Downloadable Plus	D	P									
Baseband			B	B							
Channel 2/3 Output (with Volume Control)						2					
Channel 3/4 Output (with Volume Control)						4					
Two-way Unit via STARVUE							2				
Without A/B Switch and Circuitry								0			
Special Product Order (SPO)										M	1

International 7000 – One-Way (Type 24)

	I	D	P	7	*	1	*	/	*
International Downloadable Plus 550 MHz/RF Unit	I		D	P					
				7					
PAL-I					1				
PAL-B/G					2				
One-way Unit						1			
Output Channel - VHF							1		
Output Channel - UHF (50 through 60)							2		
Output Channel - UHF (29)							3		
Data Stream - 73 MHz									1
Data Stream - 122 MHz									2
Data Stream - 158 MHz									3
Data Stream - 302 MHz									4

International 7000/STARFONE – FONE-Way (Type 25)

	I	D	P	7	*	3	*	/	*
International Downloadable Plus 550 MHz/RF Unit	I	D	P	7					
PAL-I					1				
PAL-B/G					2				
Two-way Unit via STARFONE						3			
Output Channel - VHF							1		
Output Channel - UHF (50 through 60)							2		
Output Channel - UHF (29)							3		
Data Stream - 73 MHz									1
Data Stream - 122 MHz									2
Data Stream - 158 MHz									3
Data Stream - 302 MHz									4

International 7000/STARVUE – Two-Way (Type 26)

	I	D	P	7	*	2	*	/	*
International Downloadable Plus 550 MHz/RF Unit	I	D	P	7					
PAL-I					1				
PAL-B/G					2				
Two-way Unit via STARVUE						2			
Output Channel - VHF							1		
Output Channel - UHF (50 through 60)							2		
Output Channel - UHF (29)							3		
Data Stream - 73 MHz									1
Data Stream - 122 MHz									2
Data Stream - 158 MHz									3
Data Stream - 302 MHz									4

Digital Cable Radio – One-Way (Type 27)

	D	C	R	*	0	0	0	S	X	/	Y	*	*	*	*
Digital Cable Radio	D	C	R												
Deluxe Terminal with Two-way IR				4											
Wide Range Terminal One-way Remote Capable Pulse Position Code				3											
International Model (without DC)									I		Blank				
International Model (with DC)									I		D				
Domestic Model									Blank		Blank				
Special Product Order (SPO)												*	*	*	*

Digital Cable Radio 3000S/4000S – One-Way (Type 28)

One-way.

Digital Cable Radio – Two-Way (Type 29)

Not Implemented.

CFT2000 – One-Way (Type 30)

	C	F	T	2	*	*	*	/	*	*	*	*	*	*	*
Consumer Friendly Terminal	C	F	T	2											
550MHz/BB Unit with OSD					0										
One-way Unit						1									
Channel 2/3 Output							2								
Channel 3/4 Output							4								
Special Product Order (SPO)									*	*	*	*			
ROM Version Designation													*	*	*

CFT2000 – FONE-Way (Type 31)

	C	F	T	2	*	*	*	/	*	*	*	*	*	*	*
Consumer Friendly Terminal	C	F	T	2											
550MHz/BB Unit with OSD					0										
Two-way Unit via STARFONE						3									
Channel 2/3 Output Channel 3/4 Output							2 4								
Special Product Order (SPO)									*	*	*	*			
ROM Version Designation														*	*

CFT2000 – Two-Way (Type 32)

	C	F	T	2	*	*	*	/	*	*	*	*	*	*	*
Consumer Friendly Terminal	C	F	T	2											
550MHz/BB Unit with OSD					0										
Two-way Unit via STARVUE						2									
Channel 2/3 Output Channel 3/4 Output							2 4								
Special Product Order (SPO)									*	*	*	*			
ROM Version Designation														*	*

STARPORT – One-Way (Type 33)

Addressable Control Module (ACM).

STARPORT – FONE-Way (Type 34)

Not implemented.

STARPORT – Two-Way (Type 35)

Not implemented.

CFT2200 – One-Way (Type 36)

	C	F	T	2	*	*	*	/	*	*	*	*	/	*	*	*	*
Consumer Friendly Terminal	C	F	T	2													
860 MHz/BB Unit				2													
One-way Unit					1												
Channel 3/4 Output (VHF) Channel 46-60 Output (UHF)							4										
							6										
Cartridge Type (see page B.22)								*									
Data Frequency																	
73 MHz									1								
122.7 MHz									2								
158 MHz									3								
302 MHz									4								
229.802 MHz									5								
53.35 MHz									6								
106.5 MHz									7								
108.5 MHz									8								
97.5 MHz									9								
89.3 MHz									A								
Signal Format																	
NTSC										0							
PAL-I										1							
PAL-B/G										2							
SECAM-D										3							
SECAM-K										4							
Bypass Option																	
NONE											0						
U/F/G1											1						
U/F/G											2						
V/I											3						
V/I/G											4						
U/F/G2											5						
RF-22 (950-560-000)											6						
U/F/G3											7						
U/F/G4											8						
UV/F/5A											9						
UV/F/5B											A						
UV/F/G5											B						
A/B OUT											C						
A/B IN											D						
Special Product Order (SPO)**														*	*	*	*

**See Page B.22

CFT2200 STARFONE – FONE-Way (Type 37)

	C	F	T	2	*	*	*	/	*	*	*	*	/	*	*	*	*
Consumer Friendly Terminal	C	F	T	2													
860 MHz/BB Unit				2													
FONE-way Unit					3												
Channel 3/4 Output (VHF)							4										
Channel 46-60 Output (UHF)							6										
Cartridge Type (see page B.22)								*									
Data Frequency																	
73 MHz										1							
122.7 MHz										2							
158 MHz										3							
302 MHz										4							
229.802 MHz										5							
53.35 MHz										6							
106.5 MHz										7							
108.5 MHz										8							
97.5 MHz										9							
89.3 MHz										A							
Signal Format																	
NTSC										0							
PAL-I										1							
PAL-B/G										2							
SECAM-D										3							
SECAM-K										4							
Bypass Option																	
NONE										0							
U/F/G1										1							
U/F/G										2							
V/I										3							
V/I/G										4							
U/F/G2										5							
RF-22 (950-560-000)										6							
U/F/G3										7							
U/F/G4										8							
UV/F/5A										9							
UV/F/5B										A							
UV/F/G5										B							
A/B OUT										C							
A/B IN										D							
Special Product Order (SPO)**													*	*	*	*	*

**See Page B.22

CFT2200 STARVUE – Two-Way (Type 38)

	C	F	T	2	*	*	*	/	*	*	*	*	/	*	*	*	*
Consumer Friendly Terminal	C	F	T	2													
860 MHz/BB Unit				2													
Two-way Unit					2												
Channel 3/4 Output (VHF)							4										
Channel 46-60 Output (UHF)							6										
Cartridge Type (see page B.22)								*									
Data Frequency																	
73 MHz									1								
122.7 MHz									2								
158 MHz									3								
302 MHz									4								
229.802 MHz									5								
53.35 MHz									6								
106.5 MHz									7								
108.5 MHz									8								
97.5 MHz									9								
89.3 MHz									A								
Signal Format																	
NTSC										0							
PAL-I										1							
PAL-B/G										2							
SECAM-D										3							
SECAM-K										4							
Bypass Option																	
NONE											0						
U/F/G1											1						
U/F/G											2						
V/I											3						
V/I/G											4						
U/F/G2											5						
RF-22 (950-560-000)											6						
U/F/G3											7						
U/F/G4											8						
UV/F/5A											9						
UV/F/5B											A						
UV/F/G5											B						
A/B OUT											C						
A/B IN											D						
Special Product Order (SPO)**													*	*	*	*	*

**See Page B.22

CFT2200 Cartridge Types

The serial data output for the cartridge is 9600 baud, RS-232.

Cartridge	Processor	ROM	DRAM	DL Memory	DCR	SDO
1	68306	256 KB	256 KB	128 K FLASH EE PROM	No	No
2	68306	256 KB	256 KB	128 K FLASH EE PROM	No	Yes
3	68306	256 KB	256 KB	No	No	No
4	68306	256 KB	256 KB	No	No	Yes
5	68306	256 KB	256 KB	128 K FLASH EE PROM	Yes	No
6	68306	256 KB	256 KB	128 K FLASH EE PROM	Yes	Yes
7	68306	256 KB	256 KB	No	Yes	No
8	68306	256 KB	256 KB	No	Yes	Yes
9	68306	256 KB	512 KB	128 K FLASH EE PROM	No	No
A	68306	256 KB	512 KB	128 K FLASH EE PROM	Yes	No
B	68306	256 KB	256 KB	256 K FLASH EE PROM	No	No
C	68306	256 KB	256 KB	256 K FLASH EE PROM	Yes	No
D	68306	256 KB	512 KB	256 K FLASH EE PROM	No	No
E	68306	256 KB	512 KB	256 K FLASH EE PROM	Yes	No

Special Product Order (SPO) Descriptions (Types 36, 37 and 38)

T	TOCOM Compatibility
Z	Zenith Compatibility
BTSC	BTSC Decoder
BM	Bit Mapped Graphics
T1	Tamper Switch
SP	Stereo Privacy

CFT2900 – One-Way (Type 39)

	C	F	T	2	*	*	*	/	*	*	*	*	-	*	*
Consumer Friendly Terminal	C	F	T	2											
1 GHz Unit - NVOD					9										
One-way Unit						1									
Channel 3/4 Output							4								
Special Product Order (SPO) **									*	*	*	*			
ROM Version Designation														*	*

**See Page B.24

CFT2900 STARFONE – FONE-Way (Type 40)

	C	F	T	2	*	*	*	/	*	*	*	*	-	*	*
Consumer Friendly Terminal	C	F	T	2											
1 GHz Unit - NVOD					9										
FONE-way Unit						3									
Channel 3/4 Output							4								
Special Product Order (SPO) **									*	*	*	*			
ROM Version Designation														*	*

**See Page B. 24

CFT2900 STARVUE – Two-Way (Type 41)

	C	F	T	2	*	*	*	/	*	*	*	*	-	*	*
Consumer Friendly Terminal	C	F	T	2											
1 GHz Unit - NVOD					9										
Two-way Unit						2									
Channel 3/4 Output							4								
Special Product Order (SPO) **									*	*	*	*			
ROM Version Designation														*	*

**See Page B. 24

Special Product Order (SPO) Descriptions (Types 39, 40 and 41)

S8	106.5 MHz
B	RF Bypass
N	Without StarSight EPG
A1	A/B Int Switch
D	StarSight Downloadable IR Codes

SEGA – One-Way (Type 42)

All SEGA set-top terminals have the same model number: SGT-3000.

A

always make, 2.12
Aux 12V Option, 2.4, 2.7

B

Business System Gateway, 4.1
 Debug Options screen, 2.22, 4.3
 Log Options screen, 4.2, 5.1
 starting, 4.2
 stopping, 4.2

C

calculated field values, 2.1
changes, 5.6
changing and deleting services, 2.1, 2.19
channel map, 2.2, 2.3, 2.4, 2.6, 2.7
commands
 for converter types, 6.1
commands and field tables, 6.1
commands table
 legend, 6.2
conflicting parameters, 2.17
converter. see set-top terminal
converter ID field
 processing, 2.21
converter subtype, 2.7
converter type, 2.2
 list, B.1
 valid Wire Link commands for, 6.1
 Wire Link fields for, 6.7
converter type to converter type, 2.2
CTCMCF, 2.3

D

DBDPAYS, 2.20
DBSELECT, 6.1

E

error and status messages, A.2
events
 Impulse Pay-Per-View, 2.20
 Pay-Per-View, 2.20

F

fields
 for converter types, 6.7
 Purchases, 2.10
frequency map, 2.3, 2.9

G

group, 2.4
group/subgroup, 2.4
GSGCF, 2.4

H

host sending, 2.12
hub number, 2.2, 2.4, 2.9
hub number to channel map, 2.2
hub number to frequency map, 2.3

I

I/O Port, 3.88
ICF, 2.4
implementation considerations, 2.1
Impulse Pay-Per-View, 2.20
initializing set-top terminals, 2.1, 2.21
input frequency map, 2.9
Interactive Program Guide (IPG) region
 code, 2.6
international set-top terminals, 2.4, 2.7, 2.9

L

line noise, 3.88

M

Music Choice, 2.9

O

output frequency map, 2.10

overriding values sent from the business system, 2.1, 2.12

P

parameters. *see* Wire Link configuration file parameters

Pay-Per-View, 2.6, 2.20

phases, 5.6

phone index, 2.10

R

record types. *see* commands

Refresh mode

processing, 2.1, 2.22

S

screen messages, A.1

service number, 2.7, 2.9, 2.10, 2.11, 2.12

services

changing and deleting, 2.19

services to

Aux 12V Option, 2.7

Channel Map, 2.7

Frequency Map, 2.9

Output Frequency Map, 2.10

Phone Index, 2.10

Purchasability, 2.10

SEGA Frequency Map, 2.11

Tuning Type, 2.11

UHF Output Channel Number, 2.12

setting up Pay-Per-View and Impulse Pay-Per-View events, 2.1

set-top terminal

initializing, 2.21

model number codes

CFT2000, B.17, B.18

CFT2200 Cartridge Types, B.22

CFT2200 STARVUE, B.21

CFT2900, B.23

CFT2900 STARFONE, B.23

CFT2900 STARVUE, B.23

Digital Cable Radio, B.17

Digital Cable Radio 3000S/4000S, B.17

Explanation of Model Number Codes, B.3

IMPULSE 7000, B.2, B.11

IMPULSE 7000 Baseband, B.13

IMPULSE 7000

Baseband/STARFONE, B.13

IMPULSE 7000

Baseband/STARVUE, B.14

IMPULSE 7000/STARFONE, B.12

IMPULSE 7000/STARVUE, B.12

International 7000, B.15

International 7000/STARFONE, B.16

International 7000/STARVUE, B.16

International CFT2000 set-top terminals, B.2

SEGA, B.24

Special Product Order (SPO)

Descriptions, B.22, B.24

STARCOM 450, B.5

STARCOM 450 (without IR enable/disable), B.3

STARCOM 450/P3 (with IR enable/disable), B.4

STARCOM 450-AV Downloadable, B.6

STARCOM II, 400, B.3

STARCOM V, B.5, B.6

STARCOM VI, B.7

STARCOM VI+, B.8, B.9

STARCOM VI+ Baseband, B.9

STARCOM VI+ Baseband Master/Slave, B.14

STARCOM VI+ Baseband Master/Slave/STARFONE, B.14

STARCOM VI+ Baseband Master/Slave/STARVUE, B.15

STARCOM VI+

Baseband/STARFONE, B.10

STARCOM VI+

Baseband/STARVUE, B.10

STARCOM VI+/STARFONE, B.7
STARCOM VII, B.2
STARPORT, B.18

statistics

ACC-4000 command count, 5.4
ACC-4000 commands, 5.2
ACC-4000 PPV commands, 5.2
AH-2 command count, 5.2, 5.6
changes, 5.2
convert count, 5.2, 5.6
general error count, 5.3
general errors, 5.2
nightly, 5.1
phases, 5.2
PPV/new ACC-4000 command count, 5.4
sample, 5.1
transactions per hour, 5.2, 5.7

subgroup, 2.4

T

tables

commands and fields, 6.1

troubleshooting, 6.1

tuning type, 2.11

U

UHF channel number, 2.4

UHF Output Channel Number, 2.12

W

Wire Link

commands

valid for converter types, 6.1

configuration file parameters

[001] Wire Link Base Port (dh = 1, dz = 4), 3.1
[002] Wire Link Card Type (dh = 2, dz = 1), 3.2
[003] CRT Port To Attach To (07 = tt7, 08 = tt10, 09 = tt11, 10 = tt12, 11 = tt13, etc), 3.2
[004] I/O Port To Attach To (07 = tt7, 08 = tt10, 09 = tt11, 10 = tt12, 11 = tt13, etc), 3.2
[005] Wire Link Baud Rate (4 numerics), 3.2

[006] Wire Link Data Bits (5, 6, 7 or 8 --- normally "8"), 3.3

[007] Wire Link Parity (n for none, e for even, o for odd --- normally "n"), 3.3

[008] Wire Link Stop Bits (1 or 2 --- normally "1" except at 110 baud), 3.3

[009] Turn Around Delay Time In Ticks (2 numerics - where 60 ticks = 1 second - normally "7"), 3.4

[010] Time To Wait For Next Character Once Packet Started (4 numerics - in tics where 600 = 10 sec), 3.4

[011] Max Time To Wait For XON After Receiving XOFF (3 numerics - in seconds), 3.4

[012] Binary/HEX Encoding (always "t"), 3.4

[013] XON/XOFF Flow Control, 3.5

[014] Byte Swapping, 3.5

[015] Number Of Input STX Characters (0 to 4), 3.5

[016] Delay Between I/O Reads (in ticks), 3.6

[017] Number Of Input ETX Characters (1 to 4), 3.6

[018] Number Of Output STX Characters (0 to 4), 3.6

[019] Number Of Output ETX Characters (1 to 4), 3.7

[021] Debug Option - Option 2 - Dump Input Buffer On Protocol Error, 3.8

[022] Debug Option - Option 3 - Get Input From CRT Instead Of Wire Link (for jerrold only), 3.8

[023] Debug Option - Option 4 - Dump Each Byte When Received (without pointers), 3.9

[024] Debug Option - Option 5 - Dump Output Packet Before Transmission To Host, 3.9

[025] Debug Option - Option 6 - Refresh Mode - Display Differences, 3.9

[026] Debug Option - Option 7 - Refresh Mode - Update Differences, 3.10

[027] Debug Option - Option 8 - Use "1-Second" Wire Link(s), 3.10

- [028] Debug Option - Option 9 - Always Do Full Change Punches, 3.11
- [029] Debug Option - Option 10 - If PPV Module Used/Return Statuses, Wait For Actual Statuses (T), 3.11
- [031] Debug Option - Option 12 - Dump Input Packet When ETX Received, 3.12
- [033] Debug Option - Option 14 - Dump Input Buffer When ETX Received, 3.12
- [034] Debug Option - Option 15 - No Action Mode (immediately return successful to host), 3.12
- [037] Logging Option - Option 2 - Write Wire Link Errors (one liners) To System Console, 3.13
- [038] Logging Option - Option 3 - Write Wire Link Transactions To Transaction File, 3.13
- [039] Logging Option - Option 4 - Write Wire Link Transactions To Wire Link CRT, 3.14
- [040] Logging Option - Option 5 - Write Wire Link Transactions To Screen CRT (this crt), 3.14
- [041] Logging Option - Option 6 - Display Brief Format, 3.15
- [042] Logging Option - Option 7 - Return All Wire Link Errors To Host, 3.15
- [043] Logging Option - Option 8 - Display Brief/Brief Format, 3.15
- [044] Logging Option - Option 9 - Misc Errors (non-critical) OK (if "f", next option must be "t"), 3.16
- [045] Logging Option - Option 10 - Display Misc (non-critical) Errors, 3.16
- [047] Logging Option - Option 12 - Use PPV Module, 3.17
- [048] Logging Option - Option 13 - Display Current Statistics (does not reset counters), 3.17
- [049] Logging Option - Option 14 - Update "Purchases" File With PPV Transactions, 3.17
- [050] Logging Option - Option 15 - Return PPV Statuses/Errors To Host (an array of "entries" size), 3.18
- [051] Logging Option - Option 16 - Display PPV Statuses/Errors (one line per "entry"), 3.18
- [052] Seconds Between Checking For Wire Link Messages (2 numerics), 3.19
- [053] Seconds Between Returning From Host If No Input Received (2 numerics), 3.19
- [054] Write "W Link Running/Not Running" On Wire Link CRT Every "N" Cycles ([052] not started, [053] started), 3.19
- [055] Display Statistics Every "N" Minutes From 12 midnight (4 numerics, 1438 = 2 minutes to midnight), 3.20
- [056] Default Converter Type For Record Type 060 (can only be 1, 2, or 3), 3.20
- [057] Max Lines Per Transaction File, 3.20
- [058] Default Remote For Record Type 060 (converter type 03 only), 3.21
- [059] Transmit Dummy Message To Host If Nothing From Host Every "N" Cycles ([053]), 3.21
- [061] Always Do Initialize (# 264), 3.21
- [062] Special RF Converter Initialize Flag - For Jerrold Use Only, 3.22
- [063] 512k CONVID Option, 3.22
- [064] If Activate And Deactivate Bits Not Set, Use Default Activate From Default Record, 3.22
- [065] Already Initialized - If Converter Downloadable, Assume Already Initialized, 3.22
- [066] Mixed System For Non-Adds (# 060), 3.23
- [067] Services For TCB Defined On Controller (remote, p.c. locked, etc), 3.23
- [068] If Service Sent, SET Remote, Else RESET Remote, 3.23

- [069] If Service Sent, SET P.C.
Locked, Else RESET P.C.
Locked, 3.24
- [070] If Service Sent, SET Favorite
Channel, Else RESET Favorite
Channel, 3.24
- [071] If Service Sent, SET Volume
Control, Else RESET Volume
Control, 3.24
- [072] Delete Events When Clear Both
Sent From Host (# 262, status
word bit 3), 3.24
- [073] Display Error For RF Before
Event, All After The Event, 3.25
- [074] No Action Mode Allowed (debug
option 15 [034]), 3.25
- [076] Always Do Data Base Updates
Even If No Changes, 3.26
- [077] Always Do Punches (set "f" for
host download), 3.26
- [079] Max Errors Allowed For
"1-Second" Wire Link - Change
Commands (# 060/170/262), 3.26
- [080] Max Errors Allowed For
"1-Second" Wire Link - PPV
Commands (# 294/296), 3.27
- [081] Max Errors Allowed For
"1-Second" Wire Link - Add
Commands (# 060/170/260), 3.27
- [082] Max Errors Allowed For System
Errors With External PPV Module
(0= no limit), 3.28
- [084] Adds Allowed, 3.28
- [085] Changes Allowed, 3.29
- [086] Deletes Allowed, 3.29
- [087] Assign CONVID Only In These
Partitions (binary - 5 would be 1st
and 3rd partitions), 3.29
- [088] Host Sending Purchases
Allowed In Record Type 170
(T, F), 3.30
- [089] Do Not Send Any Errors Back
To Host, 3.31
- [090] Host Sending Command And
Initialize Bit In Record Type 170
(adds/changes) (bit 13) (T, F),
3.31
- [091] Host Sending Clear Keys In
Record Type 170 (0 = no,
1= parental, 2= purchase,
3= both) (T, F), 3.31
- [092] Blocking Factor For Purchase
Upload (0/1, 2 or 3), 3.32
- [093] Use Multiple Newbox Tasks
(0/1= no, or 2= yes), 3.32
- [094] Transaction File Resides In
Data Base Directory [100, 100],
3.32
- [095] Delete Subscriptions When
Clear Both Sent From Host
(# 262, status word bit 3), 3.33
- [096] Initialize RF Converter If Active
= N (normally will only initialize
converter if active = y), 3.33
- [097] Ignore 121 Error --- Service +
and - / Assume + Service (for
valley cable), 3.33
- [098] Truncate Input Serial Number
To 10 Characters, 3.34
- [099] Converter Type Mis-Match (0 - 4
same as account mis-match,
5= prom based override, no
display), 3.34
- [100] Serial Number Mis-Match (0 - 4
same as account mis-match,
5= prom based or 1st 10
override/no display), 3.35
- [101] Account Number Mis-Match
(0= normal, 1= allow/prt,
2= allow/dont prt, 3= override/prt,
4= ignore bs), 3.35
- [102] Clear Parental And/Or Purchase
Keys When Going From Active
Status Of "N" To "Y", 3.36
- [103] Always Clear Keys When Any
Valid Action Code Value
Received, 3.36
- [104] Replace Installation Date With
Current Date For All Transactions
(excluding refreshes), 3.36
- [105] PROM/Serial Number
Mis-Match Processing (for
foxboro), 3.36
- [106] Allow Preauthorization Of RF
Converters, 3.36
- [107] Wait For Punches For RF
Converters (0= wait, 1= no wait,
2= no wait except non-change),
3.37
- [108] Data Base Error 105/15
Processing (0= normal,
1= display/punch, 2= no
display/punch), 3.37

- [109] If Service Sent, SET TCP, Else
RESET TCP, 3.37
- [110] If Service Sent, SET P.C.
Morality, Else RESET P.C.
Morality, 3.38
- [111] If Service Sent, SET Autotest,
Else RESET Autotest, 3.38
- [114] Host Sending Phone Index
(T, F), 3.38
- [115] Host Sending Hub Number
(T, F), 3.39
- [117] Invalid Service Sent By Host
During PPV Command
(0= normal, 1= proc/disp/punch,
2= rej/disp), 3.39
- [118] Treat A Package As An Event
(normally treated as a
subscription), 3.40
- [119] Host Sending Clear
Subscriptions And Clear Events
Bits (# 262, status word, bits 11,
12) (T, F), 3.40
- [120] Start Implicit Subscription Range
(in range s/e/p -> s, out of range
s/e/p -> e), 3.41
- [121] Stop Implicit Subscription Range
(in range s/e/p -> s, out of range
s/e/p -> e), 3.41
- [122] Display Full Error Messages (for
fatal messages), 3.42
- [123] Host Sending Tuning Type
(T, F), 3.42
- [124] Converter Type 09 Special
Processing (0= normal, 1= ignore
pc, 2= ignore fc, 3= ignore both),
3.43
- [125] Update "Purchases" File With
PPV Transactions, Avoid
Duplicates (ie service already
assigned), 3.43
- [126] Update "Purchases" File With
PPV Transactions Options
(0=normal, 1=1st entry, 2=1st
entry after 0 convd), 3.43
- [127] Services To Channel Map
Defined On Controller
(0-disabled) (add absolute value
to offset of 0), 3.44
- [128] Start Service To Channel Map
Value (offset of 0), 3.44
- [129] Stop Service To Channel Map
Value (specify "-" value if
selecting last service
encountered), 3.45
- [130] Services To Purchasability
Defined On Controller, 3.45
- [131] Service Purchasability Number,
3.45
- [132] Service Purchasability
Processing, 3.45
- [133] Host Sending Output Channel 3
(T, F), 3.45
- [134] Use Services To Channel Map
If Sent, If Not, Use Host Values,
3.46
- [135] Replace Installation Date With
Current Date On Refresh, 3.46
- [136] Initialize Converter When An
Add From Host, 3.47
- [137] Change Initialized To "N" If
IPPV And Moved "To" This
Converter Status, 3.47
- [138] Oak Protocol Mode, 3.47
- [139] Oak Default Converter Type,
3.47
- [140] Punch All Defined Subscriptions
For STARFONE Converters, 3.48
- [141] Refresh Mode - Write
Differences To System Console,
3.48
- [142] Refresh Mode - Write
Differences To WLTRANS.DAT
File, 3.48
- [143] Initialize Converter If Moved
"From" This Converter Status,
3.48
- [144] If Service Sent From Host, Do
Initialize, 3.49
- [145] Host Sending Refresh Bit In
Encoded Action Word
(# 170)/Status Word (# 262)
(T, F), 3.49
- [146] Always Do Command And
Initialize (all but delete
command), 3.49
- [147] Host Sending Record Type 284
(collect converter purchases)
(T, F), 3.50
- [148] Delete RF If Initialized Set To
"N" (whether converter delete
successful or not), 3.50

- [149] Maximum Records Scanned During Record Types 310 (upload restart) Or 280 (read db record), 3.50
- [150] Delete Processing For RF (0= rpt err/no del, 1= rpt err/del, 2= don't rpt err/del), 3.51
- [151] Oak Protocol Debug Switch, 3.51
- [152] RF Collection Of Purchases (0= normal, 1= try/no err, 2= no try/no err), 3.51
- [153] STARFONE Collection of Purchases (0= normal, 1= no try/err, 2= no try/no err), 3.52
- [154] Services To Hub Number Defined On Controller, 3.52
- [155] Start Service To Hub Number Value (offset of 0), 3.52
- [156] Stop Service To Hub Number Value, 3.53
- [160] Services To Phone Index Defined On Controller (0= disabled) (add absolute value to offset of 0), 3.53
- [161] Start Service To Phone Index Value (offset of 1), 3.54
- [162] Stop Service To Phone Index Value, 3.54
- [163] Use Old Hub-To-Sub Algorithm, 3.54
- [164] Timeout On Intertask Communication (to newbox or poll tasks), 3.54
- [166] For Purchases Allowed, Only Punch That Value If Nothing Else Changed (versus full change), 3.54
- [167] Write "Wire Link Running/Not Running" To System Console Every "N" Minutes (0 to 1439), 3.55
- [168] Initialize Converter If Moved "To" This Converter Status, 3.55
- [169] Initialize Converter If Account Field Changes, 3.55
- [172] Host Sending Command And Initialize Bit In Record Type 260 (add) (bit 10) (T, F), 3.56
- [173] Host Sending Command And Initialize Bit In Record Type 262 (change) (bit 10) (T, F), 3.56
- [174] Host Sending Telephone Number (T, F), 3.57
- [175] Host Sending Purchase Limit (T, F), 3.57
- [176] Host Sending Timeout (T, F), 3.57
- [177] Host Sending Emergency Alert (T, F), 3.58
- [178] Host Sending Converter Status (T, F), 3.58
- [179] Host Sending Channel Map (T, F), 3.59
- [180] Host Sending Amplifier (6 characters for 260/262, 12 characters for 460/462 commands) (T, F), 3.59
- [182] Host Sending "Convert Command Into An Initialize" In Record Type 170 (bit 7) (T, F), 3.59
- [183] Host Sending Account Number (T, F), 3.60
- [184] Host Sending Time Zone (T, F), 3.60
- [185] Host Sending CONVID (T, F), 3.60
- [186] Host Sending Input Frequency Map (460/462 command) (T, F), 3.61
- [187] Host Sending Output Frequency Map (460/462 command) (T, F), 3.61
- [188] Host Sending Frequency Map (260/262 command) (T, F), 3.61
- [189] Host Sending 12V Aux (T, F), 3.62
- [191] Host Sending Output Channel 3 For International Converters (T, F), 3.62
- [192] Host Sending Purchases Allowed (T, F), 3.62
- [194] NEWBOX "update" Mode (i.e., newbox does the database update), 3.63
- [195] NEWBOX "quick" Mode (i.e., no database get), 3.63
- [196] Refresh Mode - Print Differences Not Controlled By [197]...[206], [557]...[574], 3.63
- [197] Refresh Mode - Print Differences In Services, 3.64

- [198] Refresh Mode - Print
Differences In Account Numbers,
3.64
- [199] Refresh Mode - Print
Differences In Converter Status,
3.65
- [200] Refresh Mode - Print
Differences In Phone Index, 3.65
- [201] Refresh Mode - Print
Differences In Hub Number, 3.66
- [202] Refresh Mode - Print
Differences In TCB, 3.66
- [203] Refresh Mode - Print
Differences In Purchase Limit,
Purchases Allowed, 3.67
- [204] Refresh Mode - Print
Differences In Tuning Type,
Output Channel 3, Channel Map,
3.67
- [205] Refresh Mode - Print
Differences In Amplifier,
Master/Slave Status/Code, 3.68
- [206] Refresh Mode - Print
Differences In Active, Initialized,
3.68
- [209] Send "System Busy" To Host If
Backup In Progress (error 111),
3.69
- [210] During Pay Service Download,
Queue PPV Authorization Until
PSL Is Finished, 3.70
- [211] Close WLPSDL.DAT File "N"
Minutes After Last Pay Service
Download Command Received
(# 330), 3.70
- [213] Write All Error Messages To
System Console (excluding 070
errors), 3.70
- [214] Write 070 Errors (convid not
found) To System Console, 3.71
- [216] Start Writing At The Beginning
Of The WLTRANS.DAT On
Startup (else start where left off),
3.71
- [217] Send Host Summary Data At
EOF in 311 Packet (purchase
upload), 3.71
- [218] Send Host Summary Data At
EOF in 321 Packet (pay service
upload), 3.71
- [219] Return 396 Status/Error To
Host For All Poll Errors During
284 Data Collection, 3.72
- [222] Clear Events If Moved "From"
This Converter Status, 3.72
- [223] Clear Events If Moved "To" This
Converter Status, 3.73
- [226] Sync Packet Size Error
Processing (0= normal, 1= >6,
2= >8 log to system console),
3.74
- [227] Processing For Serial No.
Already Assigned (0= err/prt,
1= err/ret/prt, 2= ret/prt, 3= ret),
3.74
- [228] Processing For No CONVID
Number (all 0's /1's) Sent By
Business System (0= normal,
1= ret err, 2= ret convid), 3.74
- [229] Item Checking For Record Type
330 (0= err/prt, 1= prt, 2= ignore,
3= debug file/ignore), 3.75
- [230] "Write PPV Purchases To File
Allowed" (logging option) (0= not
allowed, 1= upgrade,
2= downgrade, 3= both), 3.75
- [231] Set Retry = T On Two-way
Initialization Error (error 58), 3.76
- [232] Set Retry = T On Two-way
Non-responding Error (error 72),
3.76
- [233] PPV Module Installed, 3.76
- [234] Changes To Refresh Options
Allowed ([025],[026]), 3.77
- [235] Changes to Display Misc
(non-critical) Errors Allowed
([045]), 3.77
- [236] Changes To Update
"Purchases" File With PPV
Transactions Allowed ([049]),
3.77
- [237] Return Purchase Operation In
311 Packet (returns blank/1/2),
3.78
- [238] Set Account Number To Blanks
When Blanks Sent From Host,
3.78
- [239] Set Amplifier To Blanks When
Blanks Sent From Host, 3.78
- [240] Set Converter Status To Blanks
When Blanks Sent From Host,
3.79

- [241] Change Converter Type Group
1 - To Converter Type, 3.79
- [242] Change Converter Type Group
1 - From Converter Type Start,
3.80
- [243] Change Converter Type Group
1 - From Converter Type Stop,
3.80
- [244] Change Converter Type Group
2 - To Converter Type, 3.80
- [245] Change Converter Type Group
2 - From Converter Type Start,
3.81
- [246] Change Converter Type Group
2 - From Converter Type Stop,
3.81
- [247] Change Converter Type Group
3 - To Converter Type, 3.81
- [248] Change Converter Type Group
3 - From Converter Type Start,
3.82
- [249] Change Converter Type Group
3 - From Converter Type Stop,
3.82
- [250] Host Sending Record Type 500
(0= normal, 1= accept/no check,
2= reject), 3.82
- [251] Pay Services Validation During
PPV and Using External PPV
Module (0= normal, 1= enabled),
3.83
- [252] Processing For 096 Error
(service already selected) During
PPV (0=ignore, 1=ret/prt/err,
2=ret/prt, 3=ret), 3.83
- [254] Update TCB Values With
Business System Data
Regardless Of Converter Type,
3.83
- [255] Valid MC Service Numbers
Start (if mc only accept these
services), 3.84
- [256] Valid MC Service Numbers Stop
(if mc only accept these
services), 3.84
- [257] Services To Frequency Map
Defined On Controller, 3.84
- [258] Start Service To Frequency
Map Value Defined On Controller
(offset of 1), 3.85
- [259] Stop Service To Frequency Map
Value, 3.85
- [260] 1st Valid Start Converter ID For
This Wire Link, 3.85
- [261] 1st Valid Stop Converter ID For
This Wire Link, 3.85
- [262] 2nd Valid Start Converter ID For
This Wire Link, 3.85
- [263] 2nd Valid Stop Converter ID For
This Wire Link, 3.86
- [264] Initialize Converter If Change In
Active Value (1= any change,
2= N to Y, 3= Y to N), 3.86
- [265] Minutes Between Storing
Statistical Counters (0-60), 3.86
- [266] Minutes Between Logging 111
Errors (0-60), 3.86
- [267] Services To UHF Output
Channel Number Group 1 Defined
On Controller (0-disabled) (add
absolute value to offset of 0), 3.87
- [268] Start Service To UHF Output
Channel Number Group 1
(offset 0), 3.88
- [269] Stop Service To UHF Output
Channel Number Group 1
(positive if first service, negative if
last), 3.88
- [270] Disable IO When Wire Link Is
Not Running, 3.88
- [275] Valid SEGA Service Numbers
Start (if sega, only accept these
services), 3.88
- [276] Valid SEGA Service Numbers
Stop (if sega, only accept these
services), 3.89
- [279] Converter Statuses To Match
On For Non-Responding Upload
Report (3 groups of 2 characters),
3.89
- [283] 1st Return Error Code From
Start, 3.90
- [284] 1st Return Error Code From
Stop, 3.90
- [285] 1st Return Error Code To, 3.90
- [286] 2nd Return Error Code From
Start, 3.91
- [287] 2nd Return Error Code From
Stop, 3.91
- [288] 2nd Return Error Code To, 3.91
- [290] PPV Event (294) To Channel
Map Defined On Controller
(0-disabled) (add absolute value
to offset of 0), 3.92

- [291] Start Event (294) To Channel Map Value (offset 0), 3.92
- [292] Stop Event (294) To Channel Map Value, 3.93
- [293] Use "Cyclical" To Channel Map (eg. if 3 then 1001 is 10, 1002 is 11, 1003 is 12, 1004 is 10), 3.93
- [294] "Cyclical Value", 3.93
- [295] Use "Add To" Existing Channel Map, 3.93
- [296] "Add To" Start Valid Target Channel Map Range, 3.94
- [297] "Add To" Stop Valid Target Channel Map Range, 3.94
- [299] Hub To MC Frequency Map Defined On Controller (0= disabled) (add absolute value to offset of 0), 3.94
- [300] Start Hub To MC Frequency Map Value (offset of 0), 3.95
- [301] Stop Hub To MC Frequency Map Value, 3.95
- [302] Hub To Channel Map Defined On Controller (0= disabled) (add absolute value to offset of 0), 3.95
- [303] Start Hub To Channel Map Value (offset of 0), 3.96
- [304] Stop Hub To Channel Map Value, 3.96
- [305] Do (limited) Edit Checking Of Pay Service Downloads (0= normal, 1= err/ret/prt, 2= ret/prt), 3.96
- [306] Always Make Phone Index Equal (0 to 99) (# means ignore option), 3.97
- [307] Always Make Hub Number Equal (0 to 99), 3.97
- [310] Always Make Group Number Equal (0 to 180), 3.97
- [311] Always Make Subgroup 1 Equal (0 to 180), 3.98
- [312] Always Make Subgroup 2 Equal (0 to 180), 3.98
- [313] Always Make Subgroup 3 Equal (0 to 180), 3.98
- [314] Always Make Account Number Equal (not implemented), 3.98
- [315] Always Make Telephone Number Equal (not implemented), 3.98
- [316] Always Make Active Equal (Y, N), 3.98
- [317] Always Make Purchases Allowed Equal (Y, N), 3.99
- [318] Always Make Remote Equal (Y, N), 3.99
- [319] Always Make PC Locked Equal (Y, N), 3.99
- [320] Always Make PC Morality Equal (Y, N), 3.99
- [321] Always Make Volume Control Equal (Y, N), 3.100
- [322] Always Make TCP Equal (Y, N), 3.100
- [323] Always Make Favorite Channel Equal (Y, N), 3.100
- [324] Always Make Autotest Equal (not used), 3.100
- [325] Always Make Purchase Limit Equal (0-16 for types 4, 6, 8, 11, 13 and 14; 0-63 for greater types), 3.100
- [326] Always Make Timeout Equal (2-384 in increments of 2), 3.101
- [327] Always Make Emergency Alert Equal (16 bit binary, low order 7 bits used), 3.101
- [328] Always Make Tuning Type Equal (H, I, S), 3.101
- [329] Always Make Time Zone Equal (0 to 3), 3.101
- [330] Always Make Converter Status Equal (2 characters), 3.101
- [331] Always Make Channel Map Equal (0 to 99), 3.102
- [332] Always Make UHF Output Channel Number Equal (for international converters), 3.102
- [334] Always Make Output Frequency Map Equal (0 to 99) (460/462 Command), 3.102
- [335] Always Make Input Frequency Map Equal (0 to 99) (460/462 Command), 3.103
- [336] Always Make 12V Aux Equal (1= off, 2= controller by a/b switch, 3= on), 3.103
- [337] Always Make Amplifier Equal (6 characters), 3.103
- [338] Host Sending Group Number 1 (T, F), 3.103

- [339] Host Sending Sub Group 1 (T, F), 3.104
- [340] Host Sending Sub Group 2 (T, F), 3.104
- [341] Host Sending Sub Group 3 (T, F), 3.104
- [342] Host Sending Active (T, F), 3.105
- [343] Host Sending Remote (T, F), 3.105
- [344] Host Sending PC Locked (T, F), 3.105
- [345] Host Sending PC Morality (T, F), 3.106
- [346] Host Sending Volume Control (T, F), 3.106
- [347] Host Sending TCP (time control programming) (T, F), 3.106
- [348] Host Sending Favorite Channel (T, F), 3.107
- [349] Host Sending Autotest (T, F), 3.107
- [352] Host Sending Near Video On Demand (NVOD) (T, F), 3.108
- [353] Host Sending Electronic Program Guide (EPG) (CFT-2900, StarSight) (T, F), 3.108
- [358] Purchase Limit Processing) (0= normal, 1= purchase limit only, 2= both), 3.109
- [359] Purchases Allowed (0= normal, 1= purchasability only, 2= both), 3.109
- [360] Purchase Limit Value (0= default), 3.109
- [362] Ignore Protocol Sequence Errors (return sequence number sent by host), 3.110
- [363] Usage Of Valid Start/Stop Converter ID (0= off, 1= input, 2= output, 3= both), 3.110
- [364] Archive Current Purchase File At The End Of Successful Upload, 3.110
- [365] Upload Both Current And The Last "N" Archive Purchase File, 3.111
- [366] Services To Aux 12V Option Defined On Controller (1 to 3), 3.111
- [367] Services To Aux 12V Option Start (1= off, 2= a/b switch, 3= on), 3.112
- [368] Services To Aux 12V Option Stop (positive if first service, negative if last), 3.112
- [369] Services To Tuning Type Defined On Controller (subtract absolute value from start value), 3.112
- [370] Services To Tuning Type Start (1= HRC, 2= IRC, 3= Standard), 3.113
- [371] Services To Tuning Type Stop (positive if first service, negative if last), 3.113
- [372] Services To Input Frequency Map Defined On Controller (subtract absolute value from start value), 3.113
- [373] Services To Input Frequency Map Start, 3.114
- [374] Services To Input Frequency Map Stop (positive if first service, negative if last), 3.114
- [375] Services To Output Frequency Map Defined On Controller (subtract absolute value from start value), 3.115
- [376] Services To Output Frequency Map Start, 3.115
- [377] Services To Output Frequency Map Stop (positive if first service, negative if last), 3.116
- [378] Services To UHF Output Channel Number Group 2 Defined On Controller (subtract absolute value from start value), 3.116
- [379] Services To UHF Output Channel Number Group 2 Start, 3.117
- [380] Services To UHF Output Channel Number Group 2 Stop (positive if first service, negative if last), 3.117
- [382] ICF Field To Key Off Of (1 = hub, 2 = chan map, 3 = service), 3.117
- [383] ICF "From" Start Key (offset of 1), 3.118

- [384] ICF “From” Stop Key (positive if first service, negative if last), 3.118
- [385] ICF “To” Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.118
- [386] ICF “To” Value 01, 2/2 (iioo - input frequency map, output frequency map), 3.118
- [387] ICF “To” Value 02, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.119
- [388] ICF “To” Value 02, 2/2 (iioo - input frequency map, output frequency map), 3.119
- [389] ICF “To” Value 03, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.119
- [390] ICF “To” Value 03, 2/2 (iioo - input frequency map, output frequency map), 3.119
- [391] ICF “To” Value 04, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.119
- [392] ICF “To” Value 04, 2/2 (iioo - input frequency map, output frequency map), 3.120
- [393] ICF “To” Value 05, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.120
- [394] ICF “To” Value 05, 2/2 (iioo - input frequency map, output frequency map), 3.120
- [395] ICF “To” Value 06, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.120
- [396] ICF “To” Value 06, 2/2 (iioo - input frequency map, output frequency map), 3.120
- [397] ICF “To” Value 07, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.121
- [398] ICF “To” Value 07, 2/2 (iioo - input frequency map, output frequency map), 3.121
- [399] ICF “To” Value 08, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.121
- [400] ICF “To” Value 08, 2/2 (iioo - input frequency map, output frequency map), 3.121
- [401] ICF “To” Value 09, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.121
- [402] ICF “To” Value 09, 2/2 (iioo - input frequency map, output frequency map), 3.122
- [403] ICF “To” Value 10, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option), 3.122
- [404] ICF “To” Value 10, 2/2 (iioo - input frequency map, output frequency map), 3.122
- [406] CSTCF “From” Start Service Number (offset of 1), 3.122
- [407] CSTCF “From” Stop Service Number (positive if first service, negative if last), 3.123
- [408] CSTCF “To” Value 01, 1/4 (0 to 65535), 3.123
- [409] CSTCF “To” Value 01, 2/4 (0 to 65535), 3.123
- [410] CSTCF “To” Value 01, 3/4 (0 to 65535), 3.123
- [411] CSTCF “To” Value 01, 4/4 (0 to 65535), 3.123
- [412] CSTCF “To” Value 02, 1/4 (0 to 65535), 3.124
- [413] CSTCF “To” Value 02, 2/4 (0 to 65535), 3.124
- [414] CSTCF “To” Value 02, 3/4 (0 to 65535), 3.124
- [415] CSTCF “To” Value 02, 4/4 (0 to 65535), 3.124
- [416] CSTCF “To” Value 03, 1/4 (0 to 65535), 3.124
- [417] CSTCF “To” Value 03, 2/4 (0 to 65535), 3.124
- [418] CSTCF “To” Value 03, 3/4 (0 to 65535), 3.124
- [419] CSTCF “To” Value 03, 4/4 (0 to 65535), 3.125
- [420] CSTCF “To” Value 04, 1/4 (0 to 65535), 3.125

- [421] CSTCF "To" Value 04, 2/4
(0 to 65535), 3.125
- [422] CSTCF "To" Value 04, 3/4
(0 to 65535), 3.125
- [423] CSTCF "To" Value 04, 4/4
(0 to 65535), 3.125
- [424] CSTCF "To" Value 05, 1/4
(0 to 65535), 3.125
- [425] CSTCF "To" Value 05, 2/4
(0 to 65535), 3.125
- [426] CSTCF "To" Value 05, 3/4
(0 to 65535), 3.126
- [427] CSTCF "To" Value 05, 4/4
(0 to 65535), 3.126
- [428] CSTCF "To" Value 06, 1/4
(0 to 65535), 3.126
- [429] CSTCF "To" Value 06, 2/4
(0 to 65535), 3.126
- [430] CSTCF "To" Value 06, 3/4
(0 to 65535), 3.126
- [431] CSTCF "To" Value 06, 4/4
(0 to 65535), 3.126
- [432] CSTCF "To" Value 07, 1/4
(0 to 65535), 3.126
- [433] CSTCF "To" Value 07, 2/4
(0 to 65535), 3.127
- [434] CSTCF "To" Value 07, 3/4
(0 to 65535), 3.127
- [435] CSTCF "To" Value 07, 4/4
(0 to 65535), 3.127
- [436] CSTCF "To" Value 08, 1/4
(0 to 65535), 3.127
- [437] CSTCF "To" Value 08, 2/4
(0 to 65535), 3.127
- [438] CSTCF "To" Value 08, 3/4
(0 to 65535), 3.127
- [439] CSTCF "To" Value 08, 4/4
(0 to 65535), 3.127
- [440] CSTCF "To" Value 09, 1/4
(0 to 65535), 3.128
- [441] CSTCF "To" Value 09, 2/4
(0 to 65535), 3.128
- [442] CSTCF "To" Value 09, 3/4
(0 to 65535), 3.128
- [443] CSTCF "To" Value 09, 4/4
(0 to 65535), 3.128
- [444] CSTCF "To" Value 10, 1/4
(0 to 65535), 3.128
- [445] CSTCF "To" Value 10, 2/4
(0 to 65535), 3.128
- [446] CSTCF "To" Value 10, 3/4
(0 to 65535), 3.128
- [447] CSTCF "To" Value 10, 4/4
(0 to 65535), 3.129
- [458] Host Sending Field Status
Word 1 (T, F), 3.130
- [459] Host Sending Field Status
Word 2 (T, F), 3.130
- [460] Host Sending Field Status
Word 3 (T, F), 3.130
- [461] Host Sending Field Status
Word 4 (T, F), 3.131
- [462] Host Sending Status Word 1
(T, F), 3.131
- [463] Host Sending Status Word 2
(T, F), 3.131
- [464] Host Sending Status Word 3
(T, F), 3.132
- [465] Host Sending Converter
Subtype 1/4 (T, F), 3.132
- [466] Host Sending Converter
Subtype 2/4 (T, F), 3.133
- [467] Host Sending Converter
Subtype 3/4 (T, F), 3.133
- [468] Host Sending Converter
Subtype 4/4 (T, F), 3.133
- [469] Host Sending Interactive
Program Guide (IPG) Region
Code (CFT-2200) (T, F), 3.133
- [470] Host Sending Sega Frequency
Map (T, F), 3.133
- [472] Host Sending Audio
Compression Mode (T, F), 3.134
- [473] Host Sending Power Fail
Resume (T, F), 3.134
- [474] Host Sending Copy Protection
(T, F), 3.134
- [475] Host Sending Language
Specifier, Active (T, F), 3.135
- [476] Host Sending Language
Specifier, Primary (T, F), 3.135
- [477] Host Sending Language
Specifier, Alternate (T, F), 3.135
- [478] Host Sending User Interface
Subsystem (T, F), 3.136
- [479] Host Sending Downloadable
Firmware (T, F), 3.136
- [482] Host Sending MC Digital Audio
Output Muted (T, F), 3.136
- [483] Host Sending MC Allow One
Copy (T, F), 3.137
- [485] Host Sending UHF Output
Channel Number (T, F), 3.137

- [486] Host Sending 68K Processor Option Installed (T, F), 3.138
- [487] Host Sending Downloadable Firmware Option Installed (T, F), 3.138
- [488] Host Sending MC Option Installed (T, F), 3.138
- [489] Host Sending Wireless Option Installed (T, F), 3.139
- [490] Host Sending Lynx Lite Option Installed (T, F), 3.139
- [491] Host Sending Bit-Mapped Graphics Option Installed (T, F), 3.139
- [492] Host Sending Digi-Dock Option Installed (T, F), 3.140
- [493] Host Sending IR Blaster Option Installed (T, F), 3.140
- [494] Host Sending Network Module Option Installed (T, F), 3.141
- [495] Host Sending Simulcast Option Installed (T, F), 3.141
- [504] Always Make Field Status Word 1 Equal To (0 to 65535), 3.142
- [505] Always Make Field Status Word 2 Equal To (0 to 65535), 3.142
- [506] Always Make Field Status Word 3 Equal To (0 to 65535), 3.142
- [507] Always Make Field Status Word 4 Equal To (0 to 65535), 3.143
- [508] Always Make Status Word 1 Equal To (0 to 65535), 3.143
- [509] Always Make Status Word 2 Equal To (0 to 65535), 3.143
- [510] Always Make Status Word 3 Equal To (0 to 65535), 3.143
- [511] Always Make Converter Sub-Type 1 Equal To (0 to 65535), 3.143
- [512] Always Make Converter Sub-Type 2 Equal To (0 to 65535), 3.143
- [513] Always Make Converter Sub-Type 3 Equal To (0 to 65535), 3.144
- [514] Always Make Converter Sub-Type 4 Equal To (0 to 65535), 3.144
- [521] Always Make Interactive Program Guide (IPG) Region Code (CFT-2200) Equal To (0 to 65535), 3.144
- [522] Always Make MC Frequency Map Equal To (0 to 99), 3.145
- [523] Always Make Sega Frequency Map Equal To (0 to 99), 3.145
- [524] Always Make Audio Compression Mode Equal To (0 to 3), 3.145
- [525] Always Make Power Fail Resume Equal To (T, F), 3.145
- [526] Always Make Copy Protection Equal To (0 to 3), 3.146
- [527] Always Make Language Specifier, Active Equal To (T, F), 3.146
- [528] Always Make Language Specifier, Primary Equal To (T, F), 3.146
- [529] Always Make Language Specifier, Alternate Equal To (T, F), 3.147
- [530] Always Make User Interface Subsystem Equal To (T, F), 3.147
- [531] Always Make Downloadable Firmware Equal To (T, F), 3.147
- [534] Always Make UHF Output Channel Number Equal To (0 to 99), 3.148
- [535] Always Make Near Video On Demand (NVOD) Equal To (T, F), 3.148
- [536] Always Make Electronic Program Guide (EPG) (CFT-2900, StarSight) Equal To (T, F), 3.148
- [537] Always Make 68K Processor Option Installed Equal To (T, F), 3.148
- [538] Always Make Downloadable Firmware Option Installed Equal To (T, F), 3.149
- [539] Always Make MC Option Installed Equal To (T, F), 3.149
- [540] Always Make Wireless Option Installed Equal To (T, F), 3.149
- [541] Always Make Lynx Lite Option Installed Equal To (T, F), 3.149

- [542] Always Make Bit-Mapped Graphics Option Installed Equal To (T, F), 3.150
- [543] Always Make Digi-Dock Option Installed Equal To (T, F), 3.150
- [544] Always Make IR Blaster Option Installed Equal To (T, F), 3.150
- [545] Always Make Network Module Option Installed Equal To (T, F), 3.150
- [546] Always Make Simulcast Option Installed Equal To (T, F), 3.151
- [547] Always Make MC Digital Audio Output Muted Equal To (T, F), 3.151
- [548] Always Make MC Allow One Copy Equal To (T, F), 3.151
- [557] Refresh Mode - Print Differences In Interactive Program Guide (IPG) Region Code (CFT-2200), 3.152
- [558] Refresh Mode - Print Differences In MC, Input And Output Frequency Maps, 3.153
- [559] Refresh Mode - Print Differences In Audio Compression, Copy Protection, Power Fail Resume Modes, 3.153
- [560] Refresh Mode - Print Differences In Language Specifiers Active, Primary And Alternate, 3.154
- [561] Refresh Mode - Print Differences In User Interface Subsystem and Dwnld. Firmware, 3.154
- [563] Refresh Mode - Print Differences In Converter Group/Sub-Groups, 3.155
- [564] Refresh Mode - Print Differences In Telephone Number, 3.155
- [565] Refresh Mode - Print Differences In Timeout Limit And Emergency Alert, 3.156
- [566] Refresh Mode - Print Differences In UHF Output Channel Number And Aux 12V Option, 3.156
- [567] Refresh Mode - Print Differences In Near Video On Demand (NVOD) And Electronic Program Guide (EPG), 3.157
- [568] Refresh Mode - Print Differences In 68K Processor And Downloadable Firmware Options Installed, 3.157
- [569] Refresh Mode - Print Differences In MC, Wireless And Lynx Lite Options Installed, 3.158
- [570] Refresh Mode - Print Differences In Bit-Mapped Graphics And Digi-Dock Options Installed, 3.158
- [571] Refresh Mode - Print Differences In IR Blaster And Network Module Options Installed, 3.159
- [572] Refresh Mode - Print Differences In Simulcast Option Installed, 3.159
- [573] Refresh Mode - Print Differences In MC Digital Audio Muted, MC Allow One Copy, 3.160
- [574] Refresh Mode - Print Differences In SEGA Frequency Map, 3.160
- [579] GSGCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service), 3.161
- [580] GSGCF "From" Start Key (Offset Of 1), 3.162
- [581] GSGCF "From" Stop Key (positive if first sevice, negative if last), 3.162
- [582] GSGCF "To" Value 01, 1/2 (GGG111 - Group, Sub-Group 1), 3.162
- [583] GSGCF "To" Value 01, 2/2 (222333 - Sub-Group 2, Sub-Group 3), 3.163
- [584] GSGCF "To" Value 02, 1/2 (GGG111 - Group, Sub-Group 1), 3.163
- [585] GSGCF "To" Value 02, 2/2 (222333 - Sub-Group 2, Sub-Group 3), 3.163
- [586] GSGCF "To" Value 03, 1/2 (GGG111 - Group, Sub-Group 1), 3.163

- [587] GSGCF "To" Value 03, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.163
- [588] GSGCF "To" Value 04, 1/2
(GGG111 - Group, Sub-Group 1),
3.164
- [589] GSGCF "To" Value 04, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.164
- [590] GSGCF "To" Value 05, 1/2
(GGG111 - Group, Sub-Group 1),
3.164
- [591] GSGCF "To" Value 05, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.164
- [592] GSGCF "To" Value 06, 1/2
(GGG111 - Group, Sub-Group 1),
3.164
- [593] GSGCF "To" Value 06, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.165
- [594] GSGCF "To" Value 07, 1/2
(GGG111 - Group, Sub-Group 1),
3.165
- [595] GSGCF "To" Value 07, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.165
- [596] GSGCF "To" Value 08, 1/2
(GGG111 - Group, Sub-Group 1),
3.165
- [597] GSGCF "To" Value 08, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.165
- [598] GSGCF "To" Value 09, 1/2
(GGG111 - Group, Sub-Group 1),
3.166
- [599] GSGCF "To" Value 09, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.166
- [600] GSGCF "To" Value 10, 1/2
(GGG111 - Group, Sub-Group 1),
3.166
- [601] GSGCF "To" Value 10, 2/2
(222333 - Sub-Group 2,
Sub-Group 3), 3.166
- [607] IPGRCCF Field To Key Off Of
(1= Hub, 2= Chan Map,
3= Service), 3.167
- [608] IPGRCCF "From" Start Key
(Offset Of 1), 3.167
- [609] IPGRCCF "From" Stop Key
(positive if first service, negative if
last), 3.168
- [610] IPGRCCF "To" Value 01
(0 to 65535), 3.168
- [611] IPGRCCF "To" Value 02
(0 to 65535), 3.168
- [612] IPGRCCF "To" Value 03
(0 to 65535), 3.168
- [613] IPGRCCF "To" Value 04
(0 to 65535), 3.168
- [614] IPGRCCF "To" Value 05
(0 to 65535), 3.168
- [615] IPGRCCF "To" Value 06
(0 to 65535), 3.169
- [616] IPGRCCF "To" Value 07
(0 to 65535), 3.169
- [617] IPGRCCF "To" Value 08
(0 to 65535), 3.169
- [618] IPGRCCF "To" Value 09
(0 to 65535), 3.169
- [619] IPGRCCF "To" Value 10
(0 to 65535), 3.169
- [625] CTCMCF Field To Key Off Of
(1= Hub, 2= Chan Map,
3= Service), 3.170
- [626] CTCMCF "From" Start Key
(Offset Of 1), 3.170
- [627] CTCMCF "From" Stop Key
(positive if first service, negative if
last), 3.171
- [628] CTCMCF "To" Value 01
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.171
- [629] CTCMCF "To" Value 02
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.171
- [630] CTCMCF "To" Value 03
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.172
- [631] CTCMCF "To" Value 04
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.172
- [632] CTCMCF "To" Value 05
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.172

- [633] CTCMCF "To" Value 06
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.173
- [634] CTCMCF "To" Value 07
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.173
- [635] CTCMCF "To" Value 08
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.173
- [636] CTCMCF "To" Value 09
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.174
- [637] CTCMCF "To" Value 10
((2922RE - 29 = CFT-2900,
22 = CFT-2200, RE = Regular)
(1 to 99)), 3.174
- [644] Services To SEGA Frequency
Map Defined On Controller
(subtract absolute value from
start value), 3.175
- [645] Services To SEGA Frequency
Map Start, 3.175
- [646] Services To SEGA Frequency
Map Stop (positive if first service,
negative if last), 3.176
- [647] Hub to SEGA Frequency Map
Defined On Controller (Offset +
Hub Value - Start), 3.176
- [648] Hub To SEGA Frequency Map
Start (0 - 8191), 3.176
- [649] Hub To SEGA Frequency Map
Stop (0 - 8191), 3.177
- 1st Return Error Code From Start
([283]), 3.90
- 1st Return Error Code From Stop
([284]), 3.90
- 1st Return Error Code To ([285]),
3.90
- 1st Valid Start Converter ID For This
Wire Link ([260]), 3.85
- 1st Valid Stop Converter ID For This
Wire Link ([261]), 3.85
- 2nd Return Error Code From Start
([286]), 3.91
- 2nd Return Error Code From Stop
([287]), 3.91
- 2nd Return Error Code To ([288]),
3.91
- 2nd Valid Start Converter ID For This
Wire Link ([262]), 3.85
- 2nd Valid Stop Converter ID For This
Wire Link ([263]), 3.86
- 512k CONVID Option ([063]), 3.22
- Account Number Mis-Match
(0= normal, 1= allow/prt,
2= allow/dont prt, 3= override/prt,
4= ignore bs) ([101]), 3.35
- Adds Allowed ([084]), 3.28
- "Add To" Start Valid Target Channel
Map Range ([296]), 3.94
- "Add To" Stop Valid Target Channel
Map Range ([297]), 3.94
- Allow Preauthorization Of RF
Converters ([106]), 3.36
- Already Initialized - If Converter
Downloadable, Assume Already
Initialized ([065]), 3.22
- Always Clear Keys When Any Valid
Action Code Value Received
([103]), 3.36
- Always Do Command And Initialize
(all but delete command) ([146]),
3.49
- Always Do Data Base Updates Even
If No Changes ([076]), 3.26
- Always Do Initialize (# 264) ([061]),
3.21
- Always Do Punches (set "f" for host
download) ([077]), 3.26
- Always Make 12V Aux Equal (1= off,
2= controller by a/b switch, 3= on)
([336]), 3.103
- Always Make 68K Processor Option
Installed Equal To (T, F) ([537]),
3.148
- Always Make Account Number Equal
(not implemented) ([314]), 3.98
- Always Make Active Equal (Y, N)
([316]), 3.98
- Always Make Amplifier Equal
(6 characters) ([337]), 3.103
- Always Make Audio Compression
Mode Equal To (0 to 3) ([524]),
3.145
- Always Make Autotest Equal (not
used) ([324]), 3.100
- Always Make Bit-Mapped Graphics
Option Installed Equal To (T, F)
([542]), 3.150

- Always Make Channel Map Equal
(0 to 99) ([331]), 3.102
- Always Make Converter Status Equal
(2 characters) ([330]), 3.101
- Always Make Converter Sub-Type 1
Equal To (0 to 65535) ([511]),
3.143
- Always Make Converter Sub-Type 2
Equal To (0 to 65535) ([512]),
3.143
- Always Make Converter Sub-Type 3
Equal To (0 to 65535) ([513]),
3.144
- Always Make Converter Sub-Type 4
Equal To (0 to 65535) ([514]),
3.144
- Always Make Copy Protection Equal
To (0 to 3) ([526]), 3.146
- Always Make Digi-Dock Option
Installed Equal To (T, F) ([543]),
3.150
- Always Make Downloadable
Firmware Equal To (T, F) ([531]),
3.147
- Always Make Downloadable
Firmware Option Installed Equal
To (T, F) ([538]), 3.149
- Always Make Electronic Program
Guide (EPG) (CFT-2900,
StarSight) Equal To (T, F) ([536]),
3.148
- Always Make Emergency Alert Equal
(16 bit binary, low order 7 bits
used) ([327]), 3.101
- Always Make Favorite Channel Equal
(Y, N) ([323]), 3.100
- Always Make Field Status Word 1
Equal To (0 to 65535) ([504]),
3.142
- Always Make Field Status Word 2
Equal To (0 to 65535) ([505]),
3.142
- Always Make Field Status Word 3
Equal To (0 to 65535) ([506]),
3.142
- Always Make Field Status Word 4
Equal To (0 to 65535) ([507]),
3.143
- Always Make Group Number Equal
(0 to 180) ([310]), 3.97
- Always Make Hub Number Equal
(0 to 99) ([307]), 3.97
- Always Make Input Frequency Map
Equal (0 to 99) (460/462
Command) ([335]), 3.103
- Always Make Interactive Program
Guide (IPG) Region Code
(CFT-2200) Equal To
(0 to 65535) ([521]), 3.144
- Always Make IR Blaster Option
Installed Equal To (T, F) ([544]),
3.150
- Always Make Language Specifier,
Active Equal To (T, F) ([527]),
3.146
- Always Make Language Specifier,
Alternate Equal To (T, F) ([529]),
3.147
- Always Make Language Specifier,
Primary Equal To (T, F) ([528]),
3.146
- Always Make Lynx Lite Option
Installed Equal To (T, F) ([541]),
3.149
- Always Make MC Allow One Copy
Equal To (T, F) ([548]), 3.151
- Always Make MC Digital Audio
Output Muted Equal To (T, F)
([547]), 3.151
- Always Make MC Frequency Map
Equal To (0 to 99) ([522]), 3.145
- Always Make MC Option Installed
Equal To (T, F) ([539]), 3.149
- Always Make Near Video On Demand
(NVOD) Equal To (T, F) ([535]),
3.148
- Always Make Network Module Option
Installed Equal To (T, F) ([545]),
3.150
- Always Make Output Frequency Map
Equal (0 to 99) (460/462
Command) ([334]), 3.102
- Always Make PC Locked Equal (Y, N)
([319]), 3.99
- Always Make PC Morality Equal
(Y, N) ([320]), 3.99
- Always Make Phone Index Equal
(0 to 99) (# means ignore option)
([306]), 3.97
- Always Make Power Fail Resume
Equal To (T, F) ([525]), 3.145

Always Make Purchase Limit Equal
 (0-16 for types 4, 6, 8, 11, 13 and
 14; 0-63 for greater types) ([325]),
 3.100
 Always Make Purchases Allowed
 Equal (Y, N) ([317]), 3.99
 Always Make Remote Equal (Y, N)
 ([318]), 3.99
 Always Make Sega Frequency Map
 Equal To (0 to 99) ([523]), 3.145
 Always Make Simulcast Option
 Installed Equal To (T, F) ([546]),
 3.151
 Always Make Status Word 1 Equal To
 (0 to 65535) ([508]), 3.143
 Always Make Status Word 2 Equal To
 (0 to 65535) ([509]), 3.143
 Always Make Status Word 3 Equal To
 (0 to 65535) ([510]), 3.143
 Always Make Subgroup 1 Equal
 (0 to 180) ([311]), 3.98
 Always Make Subgroup 2 Equal
 (0 to 180) ([312]), 3.98
 Always Make Subgroup 3 Equal
 (0 to 180) ([313]), 3.98
 Always Make TCP Equal (Y, N)
 ([322]), 3.100
 Always Make Telephone Number
 Equal (not implemented) ([315]),
 3.98
 Always Make Time Zone Equal
 (0 to 3) ([329]), 3.101
 Always Make Timeout Equal (2-384 in
 increments of 2) ([326]), 3.101
 Always Make Tuning Type Equal
 (H, I, S) ([328]), 3.101
 Always Make UHF Output Channel
 Number Equal (for international
 converters) ([332]), 3.102
 Always Make UHF Output Channel
 Number Equal To (0 to 99)
 ([534]), 3.148
 Always Make User Interface
 Subsystem Equal To (T, F)
 ([530]), 3.147
 Always Make Volume Control Equal
 (Y, N) ([321]), 3.100
 Always Make Wireless Option
 Installed Equal To (T, F) ([540]),
 3.149

Archive Current Purchase File At The
 End Of Successful Upload
 ([364]), 3.110
 Assign CONVID Only In These
 Partitions (binary - 5 would be 1st
 and 3rd partitions) ([087]), 3.29
 Binary/HEX Encoding (always "t")
 ([012]), 3.4
 Blocking Factor For Purchase Upload
 (0/1, 2 or 3) ([092]), 3.32
 Byte Swapping ([014]), 3.5
 Change Converter Type Group 1 -
 From Converter Type Start
 ([242]), 3.80
 Change Converter Type Group 1 -
 From Converter Type Stop
 ([243]), 3.80
 Change Converter Type Group 1 - To
 Converter Type ([241]), 3.79
 Change Converter Type Group 2 -
 From Converter Type Start
 ([245]), 3.81
 Change Converter Type Group 2 -
 From Converter Type Stop
 ([246]), 3.81
 Change Converter Type Group 2 - To
 Converter Type ([244]), 3.80
 Change Converter Type Group 3 -
 From Converter Type Start
 ([248]), 3.82
 Change Converter Type Group 3 -
 From Converter Type Stop
 ([249]), 3.82
 Change Converter Type Group 3 - To
 Converter Type ([247]), 3.81
 Change Initialized To "N" If IPPV And
 Moved "To" This Converter
 Status ([137]), 3.47
 Changes Allowed ([085]), 3.29
 Changes to Display Misc (non-critical)
 Errors Allowed ([045]) ([235]),
 3.77
 Changes To Refresh Options Allowed
 ([025],[026]) ([234]), 3.77
 Changes To Update "Purchases" File
 With PPV Transactions Allowed
 ([049]) ([236]), 3.77
 Clear Events If Moved "From" This
 Converter Status ([222]), 3.72
 Clear Events If Moved "To" This
 Converter Status ([223]), 3.73

Clear Parental And/Or Purchase Keys
 When Going From Active Status
 Of "N" To "Y" ([102]), 3.36
 Close WLPSDL.DAT File "N" Minutes
 After Last Pay Service Download
 Command Received (# 330)
 ([211]), 3.70
 conflicting, 2.17
 Converter Statuses To Match On For
 Non-Responding Upload Report
 (3 groups of 2 characters) ([279]),
 3.89
 Converter Type 09 Special
 Processing (0= normal, 1= ignore
 pc, 2= ignore fc, 3= ignore both)
 ([124]), 3.43
 Converter Type Mis-Match (0 - 4
 same as account mis-match,
 5= prom based override, no
 display) ([099]), 3.34
 CRT Port To Attach To (07 = tt7,
 08 = tt10, 09 = tt11, 10 = tt12,
 11 = tt13, etc) ([003]), 3.2
 CSTCF "From" Start Service Number
 (offset of 1) ([406]), 3.122
 CSTCF "From" Stop Service Number
 (positive if first service, negative if
 last) ([407]), 3.123
 CSTCF "To" Value 01, 1/4
 (0 to 65535) ([408]), 3.123
 CSTCF "To" Value 01, 2/4
 (0 to 65535) ([409]), 3.123
 CSTCF "To" Value 01, 3/4
 (0 to 65535) ([410]), 3.123
 CSTCF "To" Value 01, 4/4
 (0 to 65535) ([411]), 3.123
 CSTCF "To" Value 02, 1/4
 (0 to 65535) ([412]), 3.124
 CSTCF "To" Value 02, 2/4
 (0 to 65535) ([413]), 3.124
 CSTCF "To" Value 02, 3/4
 (0 to 65535) ([414]), 3.124
 CSTCF "To" Value 02, 4/4
 (0 to 65535) ([415]), 3.124
 CSTCF "To" Value 03, 1/4
 (0 to 65535) ([416]), 3.124
 CSTCF "To" Value 03, 2/4
 (0 to 65535) ([417]), 3.124
 CSTCF "To" Value 03, 3/4
 (0 to 65535) ([418]), 3.124
 CSTCF "To" Value 03, 4/4
 (0 to 65535) ([419]), 3.125

CSTCF "To" Value 04, 1/4
 (0 to 65535) ([420]), 3.125
 CSTCF "To" Value 04, 2/4
 (0 to 65535) ([421]), 3.125
 CSTCF "To" Value 04, 3/4
 (0 to 65535) ([422]), 3.125
 CSTCF "To" Value 04, 4/4
 (0 to 65535) ([423]), 3.125
 CSTCF "To" Value 05, 1/4
 (0 to 65535) ([424]), 3.125
 CSTCF "To" Value 05, 2/4
 (0 to 65535) ([425]), 3.125
 CSTCF "To" Value 05, 3/4
 (0 to 65535) ([426]), 3.126
 CSTCF "To" Value 05, 4/4
 (0 to 65535) ([427]), 3.126
 CSTCF "To" Value 06, 1/4
 (0 to 65535) ([428]), 3.126
 CSTCF "To" Value 06, 2/4
 (0 to 65535) ([429]), 3.126
 CSTCF "To" Value 06, 3/4
 (0 to 65535) ([430]), 3.126
 CSTCF "To" Value 06, 4/4
 (0 to 65535) ([431]), 3.126
 CSTCF "To" Value 07, 1/4
 (0 to 65535) ([432]), 3.126
 CSTCF "To" Value 07, 2/4
 (0 to 65535) ([433]), 3.127
 CSTCF "To" Value 07, 3/4
 (0 to 65535) ([434]), 3.127
 CSTCF "To" Value 07, 4/4
 (0 to 65535) ([435]), 3.127
 CSTCF "To" Value 08, 1/4
 (0 to 65535) ([436]), 3.127
 CSTCF "To" Value 08, 2/4
 (0 to 65535) ([437]), 3.127
 CSTCF "To" Value 08, 3/4
 (0 to 65535) ([438]), 3.127
 CSTCF "To" Value 08, 4/4
 (0 to 65535) ([439]), 3.127
 CSTCF "To" Value 09, 1/4
 (0 to 65535) ([440]), 3.128
 CSTCF "To" Value 09, 2/4
 (0 to 65535) ([441]), 3.128
 CSTCF "To" Value 09, 3/4
 (0 to 65535) ([442]), 3.128
 CSTCF "To" Value 09, 4/4
 (0 to 65535) ([443]), 3.128
 CSTCF "To" Value 10, 1/4
 (0 to 65535) ([444]), 3.128
 CSTCF "To" Value 10, 2/4
 (0 to 65535) ([445]), 3.128

- CSTCF "To" Value 10, 3/4
(0 to 65535) ([446]), 3.128
- CSTCF "To" Value 10, 4/4
(0 to 65535) ([447]), 3.129
- CTCMCF Field To Key Off Of
(1= Hub, 2= Chan Map,
3= Service) ([625]), 3.170
- CTCMCF "From" Start Key (Offset
Of 1) ([626]), 3.170
- CTCMCF "From" Stop Key (positive if
first service, negative if last)
([627]), 3.171
- CTCMCF "To" Value 01 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([628]),
3.171
- CTCMCF "To" Value 02 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([629]),
3.171
- CTCMCF "To" Value 03 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([630]),
3.172
- CTCMCF "To" Value 04 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([631]),
3.172
- CTCMCF "To" Value 05 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([632]),
3.172
- CTCMCF "To" Value 06 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([633]),
3.173
- CTCMCF "To" Value 07 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([634]),
3.173
- CTCMCF "To" Value 08 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([635]),
3.173
- CTCMCF "To" Value 09 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([636]),
3.174
- CTCMCF "To" Value 10 ((2922RE -
29 = CFT-2900, 22 = CFT-2200,
RE = Regular) (1 to 99)) ([637]),
3.174
- "Cyclical" Value ([294]), 3.93
- Data Base Error 105/15 Processing
(0= normal, 1= display/punch,
2= no display/punch) ([108]), 3.37
- debug, 3.8
- Debug Option - Option 2 - Dump
Input Buffer On Protocol Error
([021]), 3.8
- Debug Option - Option 3 - Get Input
From CRT Instead Of Wire Link
(for jerrold only) ([022]), 3.8
- Debug Option - Option 4 - Dump
Each Byte When Received
(without pointers) ([023]), 3.9
- Debug Option - Option 5 - Dump
Output Packet Before
Transmission To Host ([024]), 3.9
- Debug Option - Option 6 - Refresh
Mode - Display Differences
([025]), 3.9
- Debug Option - Option 7 - Refresh
Mode - Update Differences
([026]), 3.10
- Debug Option - Option 8 - Use
"1-Second" Wire Link(s) ([027]),
3.10
- Debug Option - Option 9 - Always Do
Full Change Punches ([028]),
3.11
- Debug Option - Option 10 - If PPV
Module Used/Return Statuses,
Wait For Actual Statuses (T)
([029]), 3.11
- Debug Option - Option 12 - Dump
Input Packet When ETX
Received ([031]), 3.12
- Debug Option - Option 14 - Dump
Input Buffer When ETX Received
([033]), 3.12
- Debug Option - Option 15 - No Action
Mode (immediately return
successful to host) ([034]), 3.12
- Default Converter Type For Record
Type 060 (can only be 1, 2, or 3)
([056]), 3.20
- Default Remote For Record Type 060
(converter type 03 only) ([058]),
3.21
- Delay Between I/O Reads (in ticks)
([016]), 3.6

- Delete Events When Clear Both Sent From Host (# 262, status word bit 3) ([072]), 3.24
- Delete Processing For RF (0= rpt err/no del, 1= rpt err/del, 2= don't rpt err/del) ([150]), 3.51
- Delete RF If Initialized Set To "N" (whether converter delete successful or not) ([148]), 3.50
- Delete Subscriptions When Clear Both Sent From Host (# 262, status word bit 3) ([095]), 3.33
- Deletes Allowed ([086]), 3.29
- Disable IO When Wire Link Is Not Running ([270]), 3.88
- Display Error For RF Before Event, All After The Event ([073]), 3.25
- Display Full Error Messages (for fatal messages) ([122]), 3.42
- Display Statistics Every "N" Minutes From 12 midnight (4 numerics, 1438 = 2 minutes to midnight) ([055]), 3.20
- Do (limited) Edit Checking Of Pay Service Downloads (0= normal, 1= err/ret/prt, 2= ret/prt) ([305]), 3.96
- Do Not Send Any Errors Back To Host ([089]), 3.31
- During Pay Service Download, Queue PPV Authorization Until PSL Is Finished ([210]), 3.70
- For Purchases Allowed, Only Punch That Value If Nothing Else Changed (versus full change) ([166]), 3.54
- GSGCF Field To Key Off Of (1= Hub, 2= Chan Map, 3= Service) ([579]), 3.161
- GSGCF "From" Start Key (Offset Of 1) ([580]), 3.162
- GSGCF "From" Stop Key (positive if first sevice, negative if last) ([581]), 3.162
- GSGCF "To" Value 01, 1/2 (GGG111 - Group, Sub-Group 1) ([582]), 3.162
- GSGCF "To" Value 01, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([583]), 3.163
- GSGCF "To" Value 02, 1/2 (GGG111 - Group, Sub-Group 1) ([584]), 3.163
- GSGCF "To" Value 02, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([585]), 3.163
- GSGCF "To" Value 03, 1/2 (GGG111 - Group, Sub-Group 1) ([586]), 3.163
- GSGCF "To" Value 03, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([587]), 3.163
- GSGCF "To" Value 04, 1/2 (GGG111 - Group, Sub-Group 1) ([588]), 3.164
- GSGCF "To" Value 04, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([589]), 3.164
- GSGCF "To" Value 05, 1/2 (GGG111 - Group, Sub-Group 1) ([590]), 3.164
- GSGCF "To" Value 05, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([591]), 3.164
- GSGCF "To" Value 06, 1/2 (GGG111 - Group, Sub-Group 1) ([592]), 3.164
- GSGCF "To" Value 06, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([593]), 3.165
- GSGCF "To" Value 07, 1/2 (GGG111 - Group, Sub-Group 1) ([594]), 3.165
- GSGCF "To" Value 07, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([595]), 3.165
- GSGCF "To" Value 08, 1/2 (GGG111 - Group, Sub-Group 1) ([596]), 3.165
- GSGCF "To" Value 08, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([597]), 3.165
- GSGCF "To" Value 09, 1/2 (GGG111 - Group, Sub-Group 1) ([598]), 3.166
- GSGCF "To" Value 09, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([599]), 3.166
- GSGCF "To" Value 10, 1/2 (GGG111 - Group, Sub-Group 1) ([600]), 3.166

- GSGCF "To" Value 10, 2/2 (222333 - Sub-Group 2, Sub-Group 3) ([601]), 3.166
- Host Sending 12V Aux (T, F) ([189]), 3.62
- Host Sending 68K Processor Option Installed (T, F) ([486]), 3.138
- Host Sending Account Number (T, F) ([183]), 3.60
- Host Sending Active (T, F) ([342]), 3.105
- Host Sending Amplifier (6 characters for 260/262, 12 characters for 460/462 commands) (T, F) ([180]), 3.59
- Host Sending Audio Compression Mode (T, F) ([472]), 3.134
- Host Sending Autotest (T, F) ([349]), 3.107
- Host Sending Bit-Mapped Graphics Option Installed (T, F) ([491]), 3.139
- Host Sending Channel Map (T, F) ([179]), 3.59
- Host Sending Clear Keys In Record Type 170 (0= no, 1= parental, 2= purchase, 3= both) (T, F) ([091]), 3.31
- Host Sending Clear Subscriptions And Clear Events Bits (# 262, status word, bits 11, 12) (T, F) ([119]), 3.40
- Host Sending Command And Initialize Bit In Record Type 170 (adds/changes) (bit 13) (T, F) ([090]), 3.31
- Host Sending Command And Initialize Bit In Record Type 260 (add) (bit 10) (T, F) ([172]), 3.56
- Host Sending Command And Initialize Bit In Record Type 262 (change) (bit 10) (T, F) ([173]), 3.56
- Host Sending "Convert Command Into An Initialize" In Record Type 170 (bit 7) (T, F) ([182]), 3.59
- Host Sending Converter Status (T, F) ([178]), 3.58
- Host Sending Converter Subtype 1/4 (T, F) ([465]), 3.132
- Host Sending Converter Subtype 2/4 (T, F) ([466]), 3.133
- Host Sending Converter Subtype 3/4 (T, F) ([467]), 3.133
- Host Sending Converter Subtype 4/4 (T, F) ([468]), 3.133
- Host Sending CONVID (T, F) ([185]), 3.60
- Host Sending Copy Protection (T, F) ([474]), 3.134
- Host Sending Digi-Dock Option Installed (T, F) ([492]), 3.140
- Host Sending Downloadable Firmware (T, F) ([479]), 3.136
- Host Sending Downloadable Firmware Option Installed (T, F) ([487]), 3.138
- Host Sending Electronic Program Guide (EPG) (CFT-2900, StarSight) (T, F) ([353]), 3.108
- Host Sending Emergency Alert (T, F) ([177]), 3.58
- Host Sending Favorite Channel (T, F) ([348]), 3.107
- Host Sending Field Status Word 1 (T, F) ([458]), 3.130
- Host Sending Field Status Word 2 (T, F) ([459]), 3.130
- Host Sending Field Status Word 3 (T, F) ([460]), 3.130
- Host Sending Field Status Word 4 (T, F) ([461]), 3.131
- Host Sending Frequency Map (260/262 command) (T, F) ([188]), 3.61
- Host Sending Group Number 1 (T, F) ([338]), 3.103
- Host Sending Hub Number (T, F) ([115]), 3.39
- Host Sending Input Frequency Map (460/462 command) (T, F) ([186]), 3.61
- Host Sending Interactive Program Guide (IPG) Region Code (CFT-2200) (T, F) ([469]), 3.133
- Host Sending IR Blaster Option Installed (T, F) ([493]), 3.140
- Host Sending Language Specifier, Active (T, F) ([475]), 3.135
- Host Sending Language Specifier, Alternate (T, F) ([477]), 3.135
- Host Sending Language Specifier, Primary (T, F) ([476]), 3.135

- Host Sending Lynx Lite Option
Installed (T, F) ([490]), 3.139
- Host Sending MC Allow One Copy
(T, F) ([483]), 3.137
- Host Sending MC Digital Audio Output
Muted (T, F) ([482]), 3.136
- Host Sending MC Option Installed
(T, F) ([488]), 3.138
- Host Sending Near Video On Demand
(NVOD) (T, F) ([352]), 3.108
- Host Sending Network Module Option
Installed (T, F) ([494]), 3.141
- Host Sending Output Channel 3 (T, F)
([133]), 3.45
- Host Sending Output Channel 3 For
International Converters (T, F)
([191]), 3.62
- Host Sending Output Frequency Map
(460/462 command) (T, F)
([187]), 3.61
- Host Sending PC Locked (T, F)
([344]), 3.105
- Host Sending PC Morality (T, F)
([345]), 3.106
- Host Sending Phone Index (T, F)
([114]), 3.38
- Host Sending Power Fail Resume
(T, F) ([473]), 3.134
- Host Sending Purchase Limit (T, F)
([175]), 3.57
- Host Sending Purchases Allowed
(T, F) ([192]), 3.62
- Host Sending Purchases Allowed In
Record Type 170 (T, F) ([088]),
3.30
- Host Sending Record Type 284
(collect converter purchases)
(T, F) ([147]), 3.50
- Host Sending Record Type 500
(0= normal, 1= accept/no check,
2= reject) ([250]), 3.82
- Host Sending Refresh Bit In Encoded
Action Word (# 170)/Status Word
(# 262) (T, F) ([145]), 3.49
- Host Sending Remote (T, F) ([343]),
3.105
- Host Sending Sega Frequency Map
(T, F) ([470]), 3.133
- Host Sending Simulcast Option
Installed (T, F) ([495]), 3.141
- Host Sending Status Word 1 (T, F)
([462]), 3.131
- Host Sending Status Word 2 (T, F)
([463]), 3.131
- Host Sending Status Word 3 (T, F)
([464]), 3.132
- Host Sending Sub Group 1 (T, F)
([339]), 3.104
- Host Sending Sub Group 2 (T, F)
([340]), 3.104
- Host Sending Sub Group 3 (T, F)
([341]), 3.104
- Host Sending TCP (time control
programming) (T, F) ([347]),
3.106
- Host Sending Telephone Number
(T, F) ([174]), 3.57
- Host Sending Time Zone (T, F)
([184]), 3.60
- Host Sending Timeout (T, F) ([176]),
3.57
- Host Sending Tuning Type (T, F)
([123]), 3.42
- Host Sending UHF Output Channel
Number (T, F) ([485]), 3.137
- Host Sending User Interface
Subsystem (T, F) ([478]), 3.136
- Host Sending Volume Control (T, F)
([346]), 3.106
- Host Sending Wireless Option
Installed (T, F) ([489]), 3.139
- Hub To Channel Map Defined On
Controller (0= disabled) (add
absolute value to offset of 0)
([302]), 3.95
- Hub To MC Frequency Map Defined
On Controller (0= disabled) (add
absolute value to offset of 0)
([299]), 3.94
- Hub to SEGA Frequency Map
Defined On Controller (Offset +
Hub Value - Start) ([647]), 3.176
- Hub To SEGA Frequency Map Start
(0 - 8191) ([648]), 3.176
- Hub To SEGA Frequency Map Stop
(0 - 8191) ([649]), 3.177
- I/O Port To Attach To (07 = tt7,
08 = tt10, 09 = tt11, 10 = tt12,
11 = tt13, etc) ([004]), 3.2
- ICF Field To Key Off Of (1 = hub,
2 = chan map, 3 = service)
([382]), 3.117
- ICF "From" Start Key (offset of 1)
([383]), 3.118

- ICF "From" Stop Key (positive if first service, negative if last) ([384]), 3.118
- ICF "To" Value 01, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([385]), 3.118
- ICF "To" Value 01, 2/2 (iioo - input frequency map, output frequency map) ([386]), 3.118
- ICF "To" Value 02, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([387]), 3.119
- ICF "To" Value 02, 2/2 (iioo - input frequency map, output frequency map) ([388]), 3.119
- ICF "To" Value 03, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([389]), 3.119
- ICF "To" Value 03, 2/2 (iioo - input frequency map, output frequency map) ([390]), 3.119
- ICF "To" Value 04, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([391]), 3.119
- ICF "To" Value 04, 2/2 (iioo - input frequency map, output frequency map) ([392]), 3.120
- ICF "To" Value 05, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([393]), 3.120
- ICF "To" Value 05, 2/2 (iioo - input frequency map, output frequency map) ([394]), 3.120
- ICF "To" Value 06, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([395]), 3.120
- ICF "To" Value 06, 2/2 (iioo - input frequency map, output frequency map) ([396]), 3.120
- ICF "To" Value 07, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([397]), 3.121
- ICF "To" Value 07, 2/2 (iioo - input frequency map, output frequency map) ([398]), 3.121
- ICF "To" Value 08, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([399]), 3.121
- ICF "To" Value 08, 2/2 (iioo - input frequency map, output frequency map) ([400]), 3.121
- ICF "To" Value 09, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([401]), 3.121
- ICF "To" Value 09, 2/2 (iioo - input frequency map, output frequency map) ([402]), 3.122
- ICF "To" Value 10, 1/2 (hhccuua - hub number, channel map, uhf channel number, aux option) ([403]), 3.122
- ICF "To" Value 10, 2/2 (iioo - input frequency map, output frequency map) ([404]), 3.122
- If Activate And Deactivate Bits Not Set, Use Default Activate From Default Record ([064]), 3.22
- If Service Sent From Host, Do Initialize ([144]), 3.49
- If Service Sent, SET Autotest, Else RESET Autotest ([111]), 3.38
- If Service Sent, SET Favorite Channel, Else RESET Favorite Channel ([070]), 3.24
- If Service Sent, SET P.C. Locked, Else RESET P.C. Locked ([069]), 3.24
- If Service Sent, SET P.C. Morality, Else RESET P.C. Morality ([110]), 3.38
- If Service Sent, SET Remote, Else RESET Remote ([068]), 3.23
- If Service Sent, SET TCP, Else RESET TCP ([109]), 3.37
- If Service Sent, SET Volume Control, Else RESET Volume Control ([071]), 3.24
- Ignore 121 Error --- Service + and - / Assume + Service (for valley cable) ([097]), 3.33
- Ignore Protocol Sequence Errors (return sequence number sent by host) ([362]), 3.110
- Initialize Converter If Account Field Changes ([169]), 3.55

Initialize Converter If Change In
Active Value (1= any change,
2= N to Y, 3= Y to N) ([264]), 3.86

Initialize Converter If Moved "From"
This Converter Status ([143]),
3.48

Initialize Converter If Moved "To" This
Converter Status ([168]), 3.55

Initialize Converter When An Add
From Host ([136]), 3.47

Initialize RF Converter If Active = N
(normally will only initialize
converter if active = y) ([096]),
3.33

Invalid Service Sent By Host During
PPV Command (0= normal,
1= proc/disp/punch, 2= rej/disp)
([117]), 3.39

IPGRCCF Field To Key Off Of
(1= Hub, 2= Chan Map,
3= Service) ([607]), 3.167

IPGRCCF "From" Start Key (Offset
Of 1) ([608]), 3.167

IPGRCCF "From" Stop Key (positive
if first service, negative if last)
([609]), 3.168

IPGRCCF "To" Value 01 (0 to 65535)
([610]), 3.168

IPGRCCF "To" Value 02 (0 to 65535)
([611]), 3.168

IPGRCCF "To" Value 03 (0 to 65535)
([612]), 3.168

IPGRCCF "To" Value 04 (0 to 65535)
([613]), 3.168

IPGRCCF "To" Value 05 (0 to 65535)
([614]), 3.168

IPGRCCF "To" Value 06 (0 to 65535)
([615]), 3.169

IPGRCCF "To" Value 07 (0 to 65535)
([616]), 3.169

IPGRCCF "To" Value 08 (0 to 65535)
([617]), 3.169

IPGRCCF "To" Value 09 (0 to 65535)
([618]), 3.169

IPGRCCF "To" Value 10 (0 to 65535)
([619]), 3.169

Item Checking For Record Type 330
(0= err/prt, 1= prt, 2= ignore,
3= debug file/ignore) ([229]), 3.75

logging, 3.13

Logging Option - Option 2 - Write
Wire Link Errors (one liners) To
System Console ([037]), 3.13

Logging Option - Option 3 - Write
Wire Link Transactions To
Transaction File ([038]), 3.13

Logging Option - Option 4 - Write
Wire Link Transactions To Wire
Link CRT ([039]), 3.14

Logging Option - Option 5 - Write
Wire Link Transactions To Screen
CRT (this crt) ([040]), 3.14

Logging Option - Option 6 - Display
Brief Format ([041]), 3.15

Logging Option - Option 7 - Return All
Wire Link Errors To Host ([042]),
3.15

Logging Option - Option 8 - Display
Brief/Brief Format ([043]), 3.15

Logging Option - Option 9 - Misc
Errors (non-critical) OK (if "f", next
option must be "t") ([044]), 3.16

Logging Option - Option 10 - Display
Misc (non-critical) Errors ([045]),
3.16

Logging Option - Option 12 - Use
PPV Module ([047]), 3.17

Logging Option - Option 13 - Display
Current Statistics (does not reset
counters) ([048]), 3.17

Logging Option - Option 14 - Update
"Purchases" File With PPV
Transactions ([049]), 3.17

Logging Option - Option 15 - Return
PPV Statuses/Errors To Host (an
array of "entries" size) ([050]),
3.18

Logging Option - Option 16 - Display
PPV Statuses/Errors (one line per
"entry") ([051]), 3.18

Max Errors Allowed For "1-Second"
Wire Link - Add Commands
(# 060/170/260) ([081]), 3.27

Max Errors Allowed For "1-Second"
Wire Link - Change Commands
(# 060/170/262) ([079]), 3.26

Max Errors Allowed For "1-Second"
Wire Link - PPV Commands
(# 294/296) ([080]), 3.27

Max Errors Allowed For System
Errors With External PPV Module
(0= no limit) ([082]), 3.28

- Maximum Records Scanned During Record Types 310 (upload restart) Or 280 (read db record) ([149]), 3.50
- Max Lines Per Transaction File ([057]), 3.20
- Max Time To Wait For XON After Receiving XOFF (3 numerics - in seconds) ([011]), 3.4
- Minutes Between Logging 111 Errors (0-60) ([266]), 3.86
- Minutes Between Storing Statistical Counters (0-60) ([265]), 3.86
- Mixed System For Non-Adds (# 060) ([066]), 3.23
- NEWBOX "quick" Mode (i.e., no database get) ([195]), 3.63
- NEWBOX "update" Mode (i.e., newbox does the database update) ([194]), 3.63
- No Action Mode Allowed (debug option 15 [034]) ([074]), 3.25
- Number Of Input ETX Characters (1 to 4) ([017]), 3.6
- Number Of Input STX Characters (0 to 4) ([015]), 3.5
- Number Of Output ETX Characters (1 to 4) ([019]), 3.7
- Number Of Output STX Characters (0 to 4) ([018]), 3.6
- Oak Default Converter Type ([139]), 3.47
- Oak Protocol Debug Switch ([151]), 3.51
- Oak Protocol Mode ([138]), 3.47
- Pay Services Validation During PPV and Using External PPV Module (0= normal, 1= enabled) ([251]), 3.83
- PPV Event (294) To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0) ([290]), 3.92
- PPV Module Installed ([233]), 3.76
- Processing For 096 Error (service already selected) During PPV (0=ignore, 1=ret/prt/err, 2=ret/prt, 3=ret) ([252]), 3.83
- Processing For No CONVID Number (all 0's /1's) Sent By Business System (0= normal, 1= ret err, 2= ret convid) ([228]), 3.74
- Processing For Serial No. Already Assigned (0= err/prt, 1= err/ret/prt, 2= ret/prt, 3= ret) ([227]), 3.74
- PROM/Serial Number Mis-Match Processing (for foxboro) ([105]), 3.36
- Punch All Defined Subscriptions For STARFONE Converters ([140]), 3.48
- Purchase Limit Processing (0= normal, 1= purchase limit only, 2= both) ([358]), 3.109
- Purchase Limit Value (0= default) ([360]), 3.109
- Purchases Allowed (0= normal, 1= purchasability only, 2= both) ([359]), 3.109
- Refresh Mode - Print Differences In 68K Processor And Downloadable Firmware Options Installed ([568]), 3.157
- Refresh Mode - Print Differences In Account Numbers ([198]), 3.64
- Refresh Mode - Print Differences In Active, Initialized ([206]), 3.68
- Refresh Mode - Print Differences In Amplifier, Master/Slave Status/Code ([205]), 3.68
- Refresh Mode - Print Differences In Audio Compression, Copy Protection, Power Fail Resume Modes ([559]), 3.153
- Refresh Mode - Print Differences In Bit-Mapped Graphics And Digi-Dock Options Installed ([570]), 3.158
- Refresh Mode - Print Differences In Converter Group/Sub-Groups ([563]), 3.155
- Refresh Mode - Print Differences In Converter Status ([199]), 3.65
- Refresh Mode - Print Differences In Hub Number ([201]), 3.66
- Refresh Mode - Print Differences In Interactive Program Guide (IPG) Region Code (CFT-2200) ([557]), 3.152
- Refresh Mode - Print Differences In IR Blaster And Network Module Options Installed ([571]), 3.159

- Refresh Mode - Print Differences In Language Specifiers Active, Primary And Alternate ([560]), 3.154
- Refresh Mode - Print Differences In MC Digital Audio Muted, MC Allow One Copy ([573]), 3.160
- Refresh Mode - Print Differences In MC, Input And Output Frequency Maps ([558]), 3.153
- Refresh Mode - Print Differences In MC, Wireless And Lynx Lite Options Installed ([569]), 3.158
- Refresh Mode - Print Differences In Near Video On Demand (NVOD) And Electronic Program Guide (EPG) ([567]), 3.157
- Refresh Mode - Print Differences In Phone Index ([200]), 3.65
- Refresh Mode - Print Differences In Purchase Limit, Purchases Allowed ([203]), 3.67
- Refresh Mode - Print Differences In SEGA Frequency Map ([574]), 3.160
- Refresh Mode - Print Differences In Services ([197]), 3.64
- Refresh Mode - Print Differences In Simulcast Option Installed ([572]), 3.159
- Refresh Mode - Print Differences In TCB ([202]), 3.66
- Refresh Mode - Print Differences In Telephone Number ([564]), 3.155
- Refresh Mode - Print Differences In Timeout Limit And Emergency Alert ([565]), 3.156
- Refresh Mode - Print Differences In Tuning Type, Output Channel 3, Channel Map ([204]), 3.67
- Refresh Mode - Print Differences In UHF Output Channel Number And Aux 12V Option ([566]), 3.156
- Refresh Mode - Print Differences In User Interface Subsystem and Dwnld. Firmware ([561]), 3.154
- Refresh Mode - Print Differences Not Controlled By [197]...[206], [557]...[574] ([196]), 3.63
- Refresh Mode - Write Differences To System Console ([141]), 3.48
- Refresh Mode - Write Differences To WLTRANS.DAT File ([142]), 3.48
- Replace Installation Date With Current Date For All Transactions (excluding refreshes) ([104]), 3.36
- Replace Installation Date With Current Date On Refresh ([135]), 3.46
- Return 396 Status/Error To Host For All Poll Errors During 284 Data Collection ([219]), 3.72
- Return Purchase Operation In 311 Packet (returns blank/1/2) ([237]), 3.78
- RF Collection Of Purchases (0= normal, 1= try/no err, 2= no try/no err) ([152]), 3.51
- Seconds Between Checking For Wire Link Messages (2 numerics) ([052]), 3.19
- Seconds Between Returning From Host If No Input Received (2 numerics) ([053]), 3.19
- Send Host Summary Data At EOF in 311 Packet (purchase upload) ([217]), 3.71
- Send Host Summary Data At EOF in 321 Packet (pay service upload) ([218]), 3.71
- Send "System Busy" To Host If Backup In Progress (error 111) ([209]), 3.69
- Serial Number Mis-Match (0 - 4 same as account mis-match, 5= prom based or 1st 10 override/no display) ([100]), 3.35
- Service Purchasability Number ([131]), 3.45
- Service Purchasability Processing ([132]), 3.45
- Services For TCB Defined On Controller (remote, p.c. locked, etc) ([067]), 3.23
- Services To Aux 12V Option Defined On Controller (1 to 3) ([366]), 3.111
- Services To Aux 12V Option Start (1= off, 2= a/b switch, 3= on) ([367]), 3.112
- Services To Aux 12V Option Stop (positive if first service, negative if last) ([368]), 3.112

Services To Channel Map Defined On Controller (0-disabled) (add absolute value to offset of 0), 3.44

Services To Frequency Map Defined On Controller ([257]), 3.84

Services To Hub Number Defined On Controller ([154]), 3.52

Services To Input Frequency Map Defined On Controller (subtract absolute value from start value) ([372]), 3.113

Services To Input Frequency Map Start ([373]), 3.114

Services To Input Frequency Map Stop (positive if first service, negative if last) ([374]), 3.114

Services To Output Frequency Map Defined On Controller (subtract absolute value from start value) ([375]), 3.115

Services To Output Frequency Map Start ([376]), 3.115

Services To Output Frequency Map Stop (positive if first service, negative if last) ([377]), 3.116

Services To Phone Index Defined On Controller (0= disabled) (add absolute value to offset of 0) ([160]), 3.53

Services To Purchasability Defined On Controller ([130]), 3.45

Services To SEGA Frequency Map Defined On Controller (subtract absolute value from start value) ([644]), 3.175

Services To SEGA Frequency Map Start ([645]), 3.175

Services To SEGA Frequency Map Stop (positive if first service, negative if last) ([646]), 3.176

Services To Tuning Type Defined On Controller (subtract absolute value from start value) ([369]), 3.112

Services To Tuning Type Start (1= HRC, 2= IRC, 3= Standard) ([370]), 3.113

Services To Tuning Type Stop (positive if first service, negative if last) ([371]), 3.113

Services To UHF Output Channel Number Group 1 Defined On Controller (0-disabled) (add absolute value to offset of 0) ([267]), 3.87

Services To UHF Output Channel Number Group 2 Defined On Controller (subtract absolute value from start value) ([378]), 3.116

Services To UHF Output Channel Number Group 2 Start ([379]), 3.117

Services To UHF Output Channel Number Group 2 Stop (positive if first service, negative if last) ([380]), 3.117

Set Account Number To Blanks When Blanks Sent From Host ([238]), 3.78

Set Amplifier To Blanks When Blanks Sent From Host ([239]), 3.78

Set Converter Status To Blanks When Blanks Sent From Host ([240]), 3.79

Set Retry = T On Two-way Initialization Error (error 58) ([231]), 3.76

Set Retry = T On Two-way Non-responding Error (error 72) ([232]), 3.76

Special RF Converter Initialize Flag - For Jerrold Use Only ([062]), 3.22

STARFONE Collection of Purchases (0= normal, 1= no try/err, 2= no try/no err) ([153]), 3.52

Start Event (294) To Channel Map Value (offset 0) ([291]), 3.92

Start Hub To Channel Map Value (offset of 0) ([303]), 3.96

Start Hub To MC Frequency Map Value (offset of 0) ([300]), 3.95

Start Implicit Subscription Range (in range s/e/p -> s, out of range s/e/p -> e) ([120]), 3.41

Start Service To Channel Map Value (offset of 0) ([128]), 3.44

Start Service To Frequency Map Value Defined On Controller (offset of 1) ([258]), 3.85

Start Service To Hub Number Value (offset of 0) ([155]), 3.52

- Start Service To Phone Index Value
(offset of 1) ([161]), 3.54
- Start Service To UHF Output Channel
Number Group 1 (offset 0)
([268]), 3.88
- Start Writing At The Beginning Of The
WLTRANS.DAT On Startup (else
start where left off) ([216]), 3.71
- Stop Event (294) To Channel Map
Value ([292]), 3.93
- Stop Hub To Channel Map Value
([304]), 3.96
- Stop Hub To MC Frequency Map
Value ([301]), 3.95
- Stop Implicit Subscription Range (in
range s/e/p -> s, out of range
s/e/p -> e) ([121]), 3.41
- Stop Service To Channel Map Value
(specify "-" value if selecting last
service encountered) ([129]), 3.45
- Stop Service To Frequency Map
Value ([259]), 3.85
- Stop Service To Hub Number Value
([156]), 3.53
- Stop Service To Phone Index Value
([162]), 3.54
- Stop Service To UHF Output Channel
Number Group 1 (positive if first
service, negative if last) ([269]),
3.88
- Sync Packet Size Error Processing
(0= normal, 1= >6, 2= >8 log to
system console) ([226]), 3.74
- Timeout On Intertask Communication
(to newbox or poll tasks) ([164]),
3.54
- Time To Wait For Next Character
Once Packet Started (4 numerics
- in tics where 600 = 10 sec)
([010]), 3.4
- Transaction File Resides In Data
Base Directory [100, 100] ([094]),
3.32
- Transmit Dummy Message To Host If
Nothing From Host Every "N"
Cycles ([053]) ([059]), 3.21
- Treat A Package As An Event
(normally treated as a
subscription) ([118]), 3.40
- Truncate Input Serial Number To 10
Characters ([098]), 3.34
- Turn Around Delay Time In Ticks
(2 numerics - where 60
ticks = 1 second - normally "7")
([009]), 3.4
- Update "Purchases" File With PPV
Transactions Options (0=normal,
1=1st entry, 2=1st entry after
0 convid) ([126]), 3.43
- Update "Purchases" File With PPV
Transactions, Avoid Duplicates
(ie service already assigned)
([125]), 3.43
- Update TCB Values With Business
System Data Regardless Of
Converter Type ([254]), 3.83
- Upload Both Current And The Last
"N" Archive Purchase File ([365]),
3.111
- Usage Of Valid Start/Stop Converter
ID (0= off, 1= input, 2= output,
3= both) ([363]), 3.110
- Use "Add To" Existing Channel Map
([295]), 3.93
- Use "Cyclical" To Channel Map (eg.
if 3 then 1001 is 10, 1002 is 11,
1003 is 12, 1004 is 10) ([293]),
3.93
- Use Multiple Newbox Tasks (0/1= no,
or 2= yes) ([093]), 3.32
- Use Old Hub-To-Sub Algorithm
([163]), 3.54
- Use Services To Channel Map If
Sent, If Not, Use Host Values
([134]), 3.46
- Valid MC Service Numbers Start (if
mc only accept these services)
([255]), 3.84
- Valid MC Service Numbers Stop (if
mc only accept these services)
([256]), 3.84
- Valid SEGA Service Numbers Start (if
sega, only accept these services)
([275]), 3.88
- Valid SEGA Service Numbers Stop (if
sega, only accept these services)
([276]), 3.89
- Wait For Punches For RF Converters
(0= wait, 1= no wait, 2= no wait
except non-change) ([107]), 3.37
- Wire Link Base Port (dh = 1, dz = 4)
([001]), 3.1

- Wire Link Baud Rate (4 numerics)
([005]), 3.2
- Wire Link Card Type (dh = 2, dz = 1)
([002]), 3.2
- Wire Link Data Bits (5, 6, 7 or 8 ---
normally "8") ([006]), 3.3
- Wire Link Parity (n for none, e for
even, o for odd --- normally "n")
([007]), 3.3
- Wire Link Stop Bits (1 or 2 ---
normally "1" except at 110 baud)
([008]), 3.3
- Write 070 Errors (convid not found)
To System Console ([214]), 3.71
- Write All Error Messages To System
Console (excluding 070 errors)
([213]), 3.70
- Write PPV Purchases To File
Allowed" (logging option) (0= not
allowed, 1= upgrade,
2= downgrade, 3= both) ([230]),
3.75
- Write "W Link Running/Not Running"
On Wire Link CRT Every "N"
Cycles ([052] not started, [053]
started) ([054]), 3.19
- Write "Wire Link Running/Not
Running" To System Console
Every "N" Minutes (0 to 1439)
([167]), 3.55
- XON/XOFF Flow Control ([013]), 3.5
- fields
valid for converter types, 6.7

ACC-4000
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